

AD-754 156

AN HISTORICAL ANALYSIS OF THE UNITED
STATES NAVAL ACADEMY GRADUATES IN
THE UNITED STATES AIR FORCE

William E. Hodge

Air Force Institute of Technology
Wright-Patterson Air Force Base, Ohio

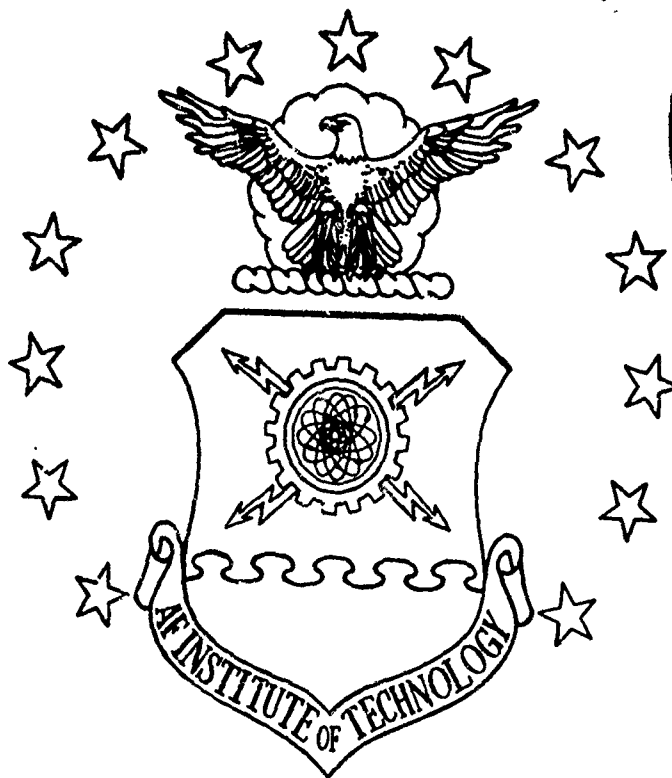
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GRADUATE IN THE
UNITED STATES AIR FORCE

THESIS

GSM/SM/72-12

William E. Hodge
Major USAF

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Security Classification

DOCUMENT CONTROL DATA - R & D

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1. ORIGINATING ACTIVITY (Corporate author) Air Force Institute of Technology (AFIT-ENS) Wright-Patterson AFB, Ohio 45433		2a. REPORT SECURITY CLASSIFICATION Unclassified	
		2b. GROUP	
3. REPORT TITLE An Historical Analysis of the United States Naval Academy Graduates in the United States Air Force			
4. DESCRIPTIVE NOTES (Type of report and inclusive dates) AFIT Thesis			
5. AUTHOR(S) (First name, middle initial, last name) William E. Hodge Major USAF			
6. REPORT DATE September 1972		7a. TOTAL NO. OF PAGES 146	7b. NO. OF REFS 30
8a. CONTRACT OR GRANT NO.		8b. ORIGINATOR'S REPORT NUMBER(S) GSM/SM/72-12	
8c. PROJECT NO.			
8d.		8b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)	
10. DISTRIBUTION STATEMENT Approved for public release, distribution unlimited.			
11. Approved for public release; LAW AFR 190-14 Jerry C. Hix, Captain, USAF Director of Information		11. SPONSORING MILITARY ACTIVITY USNA	
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DD FORM 1473
1 NOV 65

I

Unclassified

Security Classification

Unclassified

Security Classification

14. KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
Naval Academy graduates Officer performance measurement factors Retention rates						

Unclassified

Security Classification

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Air University
in Partial Fulfillment of the
Requirements for the Degree of
Master of Science**

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II B

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II 8

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support this research could not have been completed, and Miss Ruth Ann Pugh who converted my scribbling into typewritten form.

Finally, a very special thank you to my wife Barbara for her patience, understanding and help during this entire period of study. Her many hours spent collating, stuffing, addressing, and coding the questionnaires was invaluable.

William E. Hodge

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 (S) indicates separatees only.

Abstract

The purpose of this study is to provide an analysis of the Naval Academy graduates who were commissioned in the Air Force upon graduation.

Active duty personnel records were searched to determine retention, rank, professional military education, educational level and career field assignments. Comparisons were made between this group and the regular officer complement. A questionnaire was developed to provide biographical data and facts of a personal nature. All graduates, electing the Air Force, from the classes of 1949 through 1960 inclusive, were surveyed. An analysis was made of the respondents in three categories: active duty, separatees, and retirees.

The analysis showed the majority of respondents expressed at least a reasonable degree of certainty of having made the proper choice, by entering the Air Force. Naval Academy graduates appear slightly ahead of their regular officer contemporaries in promotions, and level of professional military education completed. The educational level of the Naval Academy graduate is significantly higher than the regular officer complement. There is a

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The Naval Academy graduate seems to have overcome any obstacles present in pursuing a career other than the one specifically trained for.

AN HISTORICAL ANALYSIS OF THE
UNITED STATES NAVAL ACADEMY
GRADUATES IN THE
UNITED STATES AIR FORCE

I. Research Objective

Introduction

This study is a historical analysis of the United States Naval Academy (USNA) graduates, class of 1949 through class of 1960 inclusive, who accepted appointments as commissioned officers in the United States Air Force. As of June 1972, there were a total of 1,046 USNA graduates on active duty in the Air Force. Of this total, 953 are within the population considered in this study. The purpose of this research is to determine by career profile, how these individuals, specifically trained for a career in the U. S. Navy have performed in the U. S. Air Force. Active duty performance parameters are evaluated by examination of variables such as; retention, aeronautical ratings, promotions, professional military education, post-graduate education, career fields, etc., and will be compared with the same variables for all Air Force officers, in the same year group, holding a regular commission. The total regular officer component, as of June 1972 was 62,787. Of this total, 28,460 have a year of

commission between 1949 and 1960 inclusive. These totals include all regular officers, USNA graduates included, regardless of the source of commission. (Officer Candidate School, Reserve Officer Training Corps, other Academies, etc.)

Acceptance of an appointment to the Naval Academy traditionally indicated an interest in the Navy. Furthermore, USNA graduates had spent four years receiving both educational training and practical experience designed to prepare them for Naval duties. Mid-way in their senior year, members of the 1949-1960 graduating class were required to select their service preference following graduation. At the United States Military Academy (USMA), order of selection was based on academic standing. Members of the graduating class selected their service preference in order of their numerical academic standing, as of the end of their junior year. An equitable number of Air Force appointments were available to each academic standing quartile. During this period, however, Naval Academy graduates selected service assignments based on a preference number system. Preference numbers were randomly drawn by the president of the junior class and assigned to individuals. Duty and service assignments were then selected by the individuals in order of their preference number. The number of graduates allowed to select the Air Force was divided proportionately among divisions of a class, based on class standing. For example, a maximum of 50 individuals could select the Air Force from each academic quartile.

The results of this research should either support or refute the ability of these individuals to surmount the obstacles resulting from their decision to select a service other than the one specifically trained for. The analysis of the data from separatees in the 1949-1960 year group is undertaken with a view toward identifying the partial cause and effect of non-career status which may have been associated with difficulties encountered in this transition. Analysis is presented in a separate section. Additionally, a section is devoted to a discussion of the data gathered from those in the designated Naval Academy population who have retired. However, this material is presented as information only. The small sample size coupled with the maximum of 23 years commissioned service possible at this writing preclude any conclusive factors from being determined.

Background: Establishment of a Program for Service Preference for Appointment as an Officer

In 1947 the U. S. Air Force was established as a separate service. The officer corps was comprised mainly from those serving in the Army Air Corps. Included in this group were some Military Academy graduates. No plans were made at this time to develop an Air Force Academy. Additionally, no policy existed to provide the Air Force with service academy trained, potential career officers. In light of this, the Secretary of Defense established the following policy which came into effect with the graduating class of 1949:

1. Each cadet at the United States Military Academy, and each midshipman at the United States Naval Academy, is entitled, before graduation, to state his preference for appointment, upon graduation, as a commissioned officer in either the Army, Navy, Air Force, or Marine Corps.
2. With the consent of the Secretaries of the respective services, these preferences would be honored. However, not more than 25 percent of any graduating class at either Academy may be appointed in an armed force not under the military department having jurisdiction of the graduating Academy.
3. The final approval would be at the direction of the Secretary of Defense.

In April 1954, Public Law 325, was enacted. Known as the "Air Force Academy Act", it permitted the continuation of the existing policy until the first class graduated from the Air Force Academy. Coincident with the first graduating class from the Air Force Academy, the limiting percentage was to be reduced, from 25 to 12-1/2 percent. This percentage was consented to by the Secretaries of the services

involved. The Secretary of Defense would provide for equitable distribution, should more than 12-1/2 percent seek appointment in another service.

Section 541 of Title 10, United States Code as changed on 10 August 1956, contains these provisions in addition to other provisions relating to officer appointments.

Effective with the graduating class of 1969, the Secretary of the Navy discontinued the policy of allowing graduates of the Naval Academy to accept commissions in services other than the Navy or Marine Corps. As a result of this action, it is no longer possible for the Naval Academy graduate to enter the Air Force. As a result, the USNA graduate in the Air Force is indeed becoming a "vanishing breed."

Curriculum of the United States Naval Academy

The four year curriculum offered by the United States Naval Academy, from 1949 until 1960 was essentially identical for all midshipmen. The only exception was the individuals' choice of foreign language. The curriculum was directed toward preparing the graduate for a career in the Navy. In addition to typical undergraduate engineering courses, specific courses applicable to Naval Officer duties were required. Such courses were; Seamanship and Navigation, Naval History, Naval Ordnance and Gunnery, Marine

Engineering, etc. In addition, summer training periods included: cruises on board Navy vessels, Marine and Naval amphibious training, Naval Aviation indoctrination, and tours of Naval Installations. There was no Air Force indoctrination or familiarization training offered. The only contact with the Air Force was through association with Air Force officers on the faculty and staff. The degree received was a Baccalaureate of Science Degree in General Engineering. Beginning with the graduating Class of 1961 an educational evolution took place. Initially, electives were offered, then minors, and finally, the present curriculum where each midshipman elects a major.

Selection of the Population to be Studied

In 1959, the first class graduated from the Air Force Academy and the 12-1/2 percent quota of Air Force officers from the other service academies came into effect. As a result, fewer Naval Academy graduates entered the Air Force. This fact is indicated in Table I-1. In order to provide sufficient data to be able to analyze performance, a reasonable time period, in years, had to be considered. Recent graduates have not served a long enough period of time to indicate variables to be analyzed such as; below the zone promotions, professional military education, post-graduate education, and career field migration. These two factors weighed heavily in the selection of the group for this study. Since the educational curriculum was essentially the same for all classes through 1960, this was chosen as the cut-off period. This group satisfies the first two factors and provides maximum homogeneity within the

population to be studied.

Table I-1 shows the number and percentage of Naval Academy graduates, by class, selecting a regular appointment as a second lieutenant in the Air Force.

Table I-1

Naval Academy Graduates Selecting the Air Force

<u>Graduating Class</u>	<u>Total Graduates in Class</u>	<u>Graduates Selecting Air Force in Class</u>	<u>Percent Selecting Air Force in Class</u>
1949	790	55	7.0
1950	690	171	24.8
1951	725	178	24.6
1952	783	192	24.5
1953	923	227	24.6
1954	852	221	25.9
1955	741	185	25.0
1956	681	169	24.8
1957	847	206	24.3
1958	899	185	20.6
1959	796	83	10.4
1960	797	58	7.3
1961	786	46	5.9
1962	789	81	10.3
1963	871	56	6.4
1964	927	4	0.4
1965	801	10	1.2
1966	868	4	0.5
1967	890	10	1.1
1968	<u>836</u>	<u>1</u>	<u>0.1</u>
TOTAL	16,292	TOTAL 2,142	AVG. 13.2

As shown, from 1949 through 1960, a total of 1,930 individuals selected the Air Force. This comprises 20.3% of the Naval Academy graduates during this period. Of this total (1,930), 124 are known to have died as a result of accidents, war casualties, or natural causes. Additionally, 14 members of this group are currently listed as Prisoners of War or Missing in Action resulting from the Southeast Asian conflict.

Since all Academy graduates received regular commissions, statistical comparisons will be made with the 28,460 regular officers receiving their commission in the same time frame, 1949 through 1960. The results are believed more meaningful using this criterion, since significant differences can exist between regular and reserve Air Force officers with respect to promotion, education, retention, etc.

II. Research Design

This chapter presents the methodology used in accumulating, analyzing, and testing data collected for this research. Each of the following sources will be discussed: Literature, Questionnaire, identification and location of Naval Academy graduates to be surveyed, and personnel records search.

Literary Research Methods

At the onset of this research effort, a Defense Documentation Center bibliography search was initiated to obtain references, completed research efforts and studies concerning service academy graduates analysis. As a parallel effort, a query was made of the Air Force Human Resources Laboratory, Personnel Research Division, Air Force Systems Command, for knowledge of studies of this nature. The results of this search revealed the literature to be nearly void of relevant work.

However, a 1958 Wright Air Development Center Technical Note, studied the relationships of Naval Academy Midshipmen training grades to Air Force retainability and officer effectiveness (OER), measures. (Ref. 30) The results of this study indicated a reasonably predictive correlation between Naval Academy Aptitude-for-Service ratings and

officer effectiveness. Additionally, some academic course grades predicted subsequent active duty officer effectiveness. Interestingly, the only differences noted between "active duty" and "resigned" individuals was lower Physical Education grades for the resignees.

A similar informal study was undertaken in 1961 by the Air Force Systems Command Personnel Laboratory on United States Military Academy graduates in the Air Force (Ref. 25). The results of this unpublished report were similar to the Naval Academy graduate study. Both studies reflect correlations which are less than consistent or significant. Neither study attempted, nor did any other study attempt to indicate performance, retention, educational, and career field migration of either USNA or USMA graduates.

Questionnaire

The absence of recorded data for separatees and resignees, coupled with the need for biographical and historical data, not available from Air Force active duty personnel records, required an additional source of information. A questionnaire was determined to be the most effective means of obtaining the desired information. As a compromise between the highly structured "closed" and unwieldy "open" questionnaire, a semi-open form was designed. The cover letter and questionnaire are contained in Appendix A.

The respondents' name and rank were requested for purposes of

collating questionnaire data with that obtained from other sources. Addresses were requested to assist the Naval Academy Alumni Association in updating addresses listed in the Alumni Register. Status was required to separate individuals into the three categories: active duty, separated, and retired. Graduating class was requested to assist the writer in cataloging questionnaire data. Highest midshipman rank held first class year was required to compare performance at the Academy, based on the aptitude for service system, with subsequent performance in the Air Force, based on the officer effectiveness report (OER) system.

Considering the extensive Naval training and minimal Air Force orientation received, respondents were asked to indicate their individual reasons for choosing the Air Force. This would provide a means of determining the frequency of each reason given. In asking whether the individual felt he made the proper choice, the writer attempted to determine the level of satisfaction expressed after serving in a branch of service other than the one specifically trained for. Aeronautical ratings were requested to determine multiple ratings and determine those rated separatees and retirees. This information was unavailable from other sources for separatees and retirees. Parameters could then be analyzed for each of the three chosen groupings; pilots, navigators, and non-rated. Below the zone promotions and passovers were requested for use in Air

Force performance measurement analysis. These factors are accepted factors of performance for purposes of comparison.

Ultimate rank expectation was requested to determine the individual's level of aspiration. Differences in rank expectation could then be analyzed for correlation with aeronautical ratings, career fields, educational level, etc. Command of assignment and career field information would be used to determine the extent of career field migration and career field and promotion correlations. Desired career fields for the same time periods would be used in determining the ability for the individuals to follow a career consistent with their desires. Individuals reasons for their desired career fields would provide data to be tabled to determine the most frequent reasons behind career field desires. This would allow for an analysis of the soundness of these reasons. For example, if promotional potential was indicated as the principal reason for a desired career field, did the individual's promotional success bear out this fact. Since the data extracted from the active duty personnel records indicated only the last service school completed, additional service schools completed were requested. Also, this would indicate the service schools completed by separatees and retirees. Personnel records search revealed the educational level of the active duty personnel only. To determine similar

information for separatees and retirees, and to indicate multiple degrees, post-graduate education information was requested. In addition, this would indicate the interest, expressed by applications for education, and the percent of non-acceptance for one reason or another. Hopefully, the respondents would indicate reasons for non-acceptance.

Active duty personnel were asked to indicate their career length intentions and the underlying factors in determining this tenure. Analysis of these responses would indicate the career intentions and underlying reasons by aeronautical ratings, career fields, years of service completed, etc. Ultimate retirement plans would indicate the percent of individuals intending to pursue a second career. Additionally, differences related to aeronautical ratings could be determined. The effect of active duty experiences on the indicated choices would also be analyzed.

Separatees and retirees were asked to indicate the number of years of service completed upon separation or retirement. This factor would be compared with the reasons given by the individuals for their separation or retirement. These same individuals were asked to indicate the type of work and industry for the periods since leaving the Air Force. This would suggest relationships between civilian occupations and the education and experience

received at the Naval Academy and during their Air Force service. These individuals were asked to relate their desired type of work and industry during the same time periods. This would reflect the ability of the individuals to pursue a career consistent with their desires in civilian occupations. This level of career satisfaction could then be compared with the same factor determined from those on active duty.

Numerous drafts of the questionnaire were prepared and tested by 27 Naval Academy graduates in the local area to eliminate imperfections and possible misunderstandings in its completion.

Identification And Location Of Population

Once the decision was made to survey the entire population of Naval Academy graduates from the classes of 1949 through 1960, the formidable task of securing valid addresses had to be initiated. No official records are kept indicating those individuals, of each graduating class, who had selected the Air Force. The annual Naval Academy Registers, 1949 through 1960, were searched, and each applicable individual identified. Once this was accomplished, one or more of the following sources was used to determine the current address for each individual:

Active Duty:

1. Lists submitted by USNA Class Secretaries
2. Lists submitted by Alumni Chapters

3. U.S. N. A. Alumni Register
4. USAF Uniformed Officer Roster, USAF PAS
Directory, AFM 11-4, Vol. I, II
5. Addresses submitted by other individuals

Retired/Separated:

1. 1, 2, 3, and 5 above
2. The USNA Compass, listing permanent home addresses
for each individual at graduation, 1949 through 1960.

From the above sources 1795 questionnaires were then mailed to each individual. Because of improper addresses, 516 were returned. Four hundred fifty-three (453) of these were remailed to alternate addresses, and subsequently 106 of these were received by the addressee, or not returned by the Postal Service. Ultimately, a total of 759 questionnaires (54.8%) were returned with useable data, prior to 24 August, and comprise the sample for this study. The distribution of these returned questionnaires was 531 active duty, 201 separatees and 27 retirees. An additional 53 questionnaires were either unusable or received subsequent to 24 August.

Personnel Records Section

With the support of the Directorate of Personnel Plans, Research and Analysis Division, Headquarters United States Air Force, the following information was extracted from the records of the 953

officers within this population, on active duty, as of 1 June 1972:

1. Name
2. Year of Commission
3. Rank
4. Primary Air Force Specialty Code (PAFSC)
5. Duty Air Force Specialty Code (DAFSC)
6. Last Professional Military Education completed
7. Education Level

The same information, with the exception of name, was extracted from the records of the total regular officer complement of the Air Force. This group, 28,460 in number, includes all regular officers, regardless of source of commission. This data would be the basis for comparison between the Naval Academy graduates and the regular officer complement for their year of commission. From the rank distribution, determination could be made as to the relative percentages for each year of commission. The AFSC data would serve to show the career field distribution of both groups, by pilot, navigator, and non-rated. Analysis of this data would directly reflect career field migration of the rated officer. Additionally, any differences in career field distribution would be apparent. Last professional military education completed would reflect the percentage distribution of level of service school completion for both groups. Likewise the educational level data would indicate any differences in the level attained by the two groups.

Data Analysis

From all questionnaires received prior to 24 August, answers were coded and recorded. For multiple answer questions, only the first three were recorded by numerical precedence. Examples of this type question are; reasons for choosing the Air Force, reasons for desired career field, and reasons for indicated career length. For responses not indicating numerical precedence, a random numerical order was assigned and recorded. Once all answers had been recorded, the individual questionnaires were destroyed in order to preserve the anonymity of the respondents. Matrix form tables were then constructed indicating the frequencies and percentages of the various responses. These tables are found in Appendix A.

The information received from the Directorate of Personnel Plans, Research and Analysis Division, HQ USAF, record search was tabled by percentages for each year of commission, 1949 through 1960, for pilots, navigators and non-rated officers for both the regular complement, including USNA graduates, and the USNA graduates separately.

Comparisons were compiled for; PAFSC, DAFSC, Educational level, Professional Military Education, and rank. Complete comparison figures are included in Appendix B through Appendix E. The results of this data analysis is presented in the next section. Due to the similarity in PAFSC and DAFSC figures, only DAFSC results will be discussed.

III. Data Analysis

This chapter presents the results of the analysis of data from personnel records and responses obtained. Figures presented in this section are key extracts from the complete tables of data included in the appendix. Results obtained from the questionnaire and the personnel records search will be presented in four sections. First to be discussed are responses to questions pertinent to all; active duty, separatees, and retirees. Second, is the data analysis pertinent to active duty personnel. Third, that data applicable to only separatees. Lastly, a discussion of the information from the retirees will be presented.

Retention

A search of active duty personnel records, as of June 1972, revealed the number of Naval Academy graduates on active duty, by year of commission. From these numbers a retention percentage, by class, was computed in the following manner. Those deceased were subtracted from the total number entered. Active duty figures were then compared to this new total to determine retention percentages. Since a determination of all the members of this population, who have retired, was not possible in the time available for this research, they were considered the same as separatees. This factor is in part responsible for the low percentage figures

for 1949 - 1952. A comparison of active duty with the total entered, less deceased and retired, would appreciably increase these percentages.

Table III-1
USNA Graduate Retention in the Air Force

<u>Year</u>	<u>No. Entering Air Force</u>	<u>No. Deceased</u>	<u>No. Active Duty Air Force</u>	<u>% Retention</u>
1949	55	7	13	27.1
1950	171	16	56	36.1
1951	178	17	72	44.7
1952	192	16	94	53.4
1953	227	23	118	57.8
1954	221	10	133	63.0
1955	185	9	92	52.3
1956	169	8	82	50.9
1957	206	10	118	60.2
1958	185	4	113	62.4
1959	83	2	49	60.5
1960	<u>58</u>	<u>2</u>	<u>27</u>	<u>48.2</u>
Total	1,930	124	967 (1)	AVG. 53.5

Retention rates appear stable from 1953-1960. A breakdown of these retention percentages, by class standing quartile, is included in Appendix B.

Unfortunately, the Air Force does not maintain records indicating retention by year of commission. Therefore, no

(1)967 includes the 14, from this population, officially listed as either missing in action or prisoner of war.

comparison of retention, within this population, and the regular officer component is possible. Although no figures were obtained, the Retention Analysis Division, Navy Bureau of Personnel volunteered the following information. It is their policy to analyze the retention rates of officers at the completion of the individuals initial commitment, initial commitment plus two years, and initial commitment plus five years. When presented the retention percentages from Table III-1, Naval Retention Analysis Division personnel indicated these figures were comparable to the initial commitment plus two year figures for USNA graduates in the Navy. They were considerably higher than the same group at initial commitment plus five years. Navy Bureau of Personnel officers concluded that, the Air Force has a higher retention rate of USNA graduates than does the Navy.

It should be noted that several USNA graduates, who have separated from active Air Force duty, are participating in one of the Reserve or National Guard programs.

Reasons for Choosing the Air Force

From each returned questionnaire, the three principal reasons indicated for choosing the Air Force, were recorded by numerical preference (1st choice, 2nd choice, 3rd choice). The frequency and percentage of all responses is tabled in Appendix A. Not all respondents indicated three choices. Therefore, the total number

of 2nd and 3rd choices is less than the total number of useable questionnaires returned. Table III-2 presents the frequency and percentage, by choice, for each response: The last column indicates the percent, each response received, of the total responses given regardless of numerical choice.

Table III-2
Reasons for Choosing the Air Force

<u>Response</u>	<u>1st Choice</u>	<u>2nd Choice</u>	<u>3rd Choice</u>	<u>% of Total Responses</u>
Dislike for Naval duties	126 16.6%	92 15.4%	68 16.4%	16.1%
Better promotional potential	80 10.5%	118 19.7%	84 20.3%	15.9%
Better educational potential	95 12.5%	98 16.4%	99 23.9%	16.5%
Personal preference	140 18.4%	103 17.2%	88 21.3%	18.7%
Immediate flying training	65 8.6%	9 1.5%	6 1.4%	4.5%
Flying program/equipment	62 8.2%	51 8.5%	10 2.4%	6.9%
Physical qualifications	92 12.1%	15 2.5%	4 1.0%	6.3%
Careers available	37 5.0%	28 4.7%	9 2.2%	4.2%
Better family life	20 2.6%	43 7.2%	16 3.9%	4.5%

The response, Better promotional potential, was much more prevalent with the classes of 1957 and earlier than in the later classes. This may be indicative of the changing promotional program in the Navy in recent years. It should be noted that this response received higher percentages as a secondary and tertiary reason, than as a primary reason.

The large percentage of first choice responses relating to, Physical qualifications, is partially a result of the differences between Air Force and Navy physical standards. Air Force standards for pilot training were slightly lower than Navy standards. Additionally, the Air Force offered officers an opportunity to fly as a navigator, requiring even lower physical standards. The Navy had no similar program. Thus, the reduced physical requirements for the navigator program provided flying opportunities for individuals not meeting the physical standards for pilots. Realizing the opportunity to qualify for flight duties, and flying pay, many may have opted to the Air Force.

The Navy also had minimum physical standards for line commissions. Those failing to meet these standards were left with a choice of Supply or Civil Engineering Corps assignments. The Air Force had no such physical standard differentiation for non-rated duties. Those not meeting the flight standards, for either pilots or navigators, could elect any of the many career fields available in the Air Force.

Additionally, the Air Force indicated that individuals would be reconsidered for pilot or navigator training if they subsequently were able to meet the physical qualifications. The opportunities for Research and Development (R & D) and missile and space programs, for example, in the Air Force were an attraction to many of these. Of the 301 non-rated respondents, the three initial assignment career fields receiving the largest number of USNA graduates were; R&D (74), Missiles (64), and Information and Intelligence (38).

The, Flying program or equipment, response was equally divided into four underlying reasons:

1. The jet aircraft in and proposed into the Air Force inventory,
2. The adersion to flying from aircraft carriers,
3. Primary duty as a pilot only and,
4. The navigator flying program previously mentioned.

All of these reasons probably had a positive influence toward a flying career in the Air Force and increased the percent choosing the Air Force.

The opportunity for immediate entrance into flying training, rather than going to sea for two years before entering as required by the Navy was also an inducement to 80 members of this population. This answer was indicated by respondents prior to the lass of 1956.

Beginning with the graduating Class of 1956, Navy policy was changed allowing immediate entrance into flying training. This made the Navy and the Air Force comparable on this factor.

Graduate education programs allowing for, better educational potential within the Air Force received substantial mention. This program was more extensive and received more publicity than the Naval Post Graduate School program. The significance of this factor is reflected in the percent of this population who subsequently pursued advanced education. Discussion of the educational level of this population will be presented later in this chapter.

Dislike for Naval duties, received substantial mention. More specifically, sea duty. The extended tours on cruise were viewed as a great deterrent to choosing the Navy. The summer training cruises, as midshipmen, may well have caused these individuals to realize the long family separations and inconveniences involved. Closely tied to this factor was that of, Better family life. Better family life received a larger percent of secondary and tertiary reasons than as a primary reason.

Careers available responses could reasonably be combined with, combine R&D and flying. The significance of the opportunity for rated officers to perform duties in the R&D field will become more apparent in the career field migration discussion later in this chapter.

An additional response, USNA and Navy officer attitudes, received 41 responses. Each response was accompanied by an explanation of the response. The inclusion of these explanations, by the respondents, indicates its importance. Basically, these individuals were discouraged by their relationships with the Naval officers both at the Academy and during summer cruises. The majority of this group were equally impressed by the qualities of the Air Force officers assigned to the Naval Academy. Another response, Informal Air Force attitude, complemented this response and the 18 responses it received tend to increase the apparent significance of this factor in selecting the Air Force over the Navy upon graduation.

The distribution of responses was extremely consistent within the three categories surveyed; active duty, separated, retired. A complete breakout of the responses received is included in Appendix A.

Do You Believe You Made the Proper Choice

Respondents were asked to indicate, in retrospect, their level of certainty of having made the proper choice. Only active duty respondents will be discussed here. Separates and retiree respondents will be covered in the appropriate sections. The presence of dissonance reduction in questions of this nature bias such responses. That is, people will commonly justify particular decisions they have made. However, the question was considered pertinent to this study and the results are of interest.

Table III-3

Certainty of Having Made the Proper Choice

<u>Certainty Level</u>	<u>Pilots # (%)</u>	<u>Navigators # (%)</u>	<u>Non-Rated # (%)</u>
Very definitely	175 (67.8)	49 (53.8)	128 (70.3)
Reasonably certain	56 (21.7)	27 (29.7)	37 (20.3)
Uncertain	11 (4.3)	4 (4.4)	4 (2.2)
Possibly wrong decision	13 (5.0)	7 (7.7)	6 (3.3)
Wrong decision	<u>3 (1.2)</u>	<u>4 (4.4)</u>	<u>7 (3.9)</u>
Total	258 (100.0)	91 (100.0)	182 (100.0)

As shown, navigators have the lowest percentage of, Very Definitely, and the highest percent of less than reasonably certain responses. Three factors, expressed by many of the navigator respondents, could partially explain this. They are; less opportunity for command positions, fewer general officer slots for navigators, and the recent shortage of navigators requiring them to remain in, or return to flying duties. Of the 15 navigators responding with uncertain or less, 8 (53.3%) were presently performing flying duties.

It is interesting to note that just under 89% of all active duty respondents are at least reasonably certain that the right decision was made. If rank and promotions were a prime goal of these individuals, the current promotional system differences between the Air Force and the Navy would seem to precipitate more doubt. As

interpreted from responses to other questions, and comments volunteered by respondents, the opportunity for advanced education and the career fields available are prime factors in the individual's justification of his decision. However, it should be noted that 29 of the 40 (72.5%) individuals indicating that possibly or definitely a wrong decision had been made have received one or more passovers.

Rank

The rank distributions of the 953 active duty Naval Academy graduates and the regular component of 28,460 officers, including USNA graduates, for the commissioning years of 1949 through 1960 are contained in Appendix B. These figures were extracted from Personnel Research and Analysis Division records as of June 1972. They do not indicate those selected but not wearing the new rank at that time. The tables indicate numbers and percentages for pilots, navigators, non-rated officers, and the totals for the respective year. A total of 1,876 medical officers holding a regular commission are included, even though they are subject to an accelerated promotion criteria.

Table III-4 reflects the percentage of USNA graduates, by graduating class, ahead and behind the mean rank of the total regular officer component for each year of commission. Mean rank is defined as, the rank held by the greatest percent of the regular officer component for that year of commission. A similar table, further broken down into class standing quartile is included in Appendix B.

Table III-4

Number and Percent Ahead and Behind Mean Rank, By Class

<u>Class</u>	<u>Total Active</u>	<u>Regular Officer Mean Rank</u>	<u>USNA Officers Ahead of Mean</u>	<u>USNA Officers Behind Mean</u>
1949	13	Lt Col	10 (76.9%)	0 (0.0%)
1950	56	Lt Col	37 (66.1%)	1 (1.8%)
1951	70	Lt Col	29 (41.4%)	2 (2.9%)
1952	92	Lt Col	20 (21.7%)	8 (8.7%)
1953	115	Lt Col	13 (11.3%)	14 (12.2%)
1954	132	Lt Col	7 (5.3%)	15 (11.3%)
1955	91	Major	74 (81.3%)	0 (0.0%)
1956	80	Major	12 (15.0%)	0 (0.0%)
1957	117	Major	14 (12.0%)	0 (0.0%)
1958	112	Major	3 (2.7%)	4 (3.6%)
1959	48	Major	2 (4.2%)	2 (4.2%)
1960	<u>27</u>	Major	<u>0 (0.0%)</u>	<u>0 (0.0%)</u>
Total	953		221 (23.2%)	46 (4.8%)

As indicated above, with only minor exceptions, the Naval Academy graduate is with or ahead of the mean rank of the regular component for his year group. Nearly 25% are ahead of their mean rank while less than 5% are behind. The Classes of 1949, 1950, 1951 and 1955 are significantly ahead of their contemporaries. The fact that date of rank, as well as those selected but not yet promoted

are not considered provides a limited picture. However, the same criteria apply to all personnel and therefore represent a fair and equitable standard for measurement.

The class standing quartile breakout, of these figures, in Appendix B, indicates the existence of a low order correlation between USNA class standing and Air Force promotional success. The greatest percentages, ahead of the mean rank, normally falls in the top quartile. Likewise, the smallest percentages, ahead of the mean rank, normally fall in the bottom quartile. Furthermore, six of eight individuals more than one grade ahead of the mean rank are from the top quartile. The remaining two are from the second quartile. The two individuals more than one grade behind the mean are one from each of the bottom two quartiles. This suggests that class standing is a low order predictor of performance, as reflected by promotions.

Below the Zone Promotions

An analysis was made to discover if a better correlation exists between Naval Academy rank and Air Force promotional success, as indicated by below the zone (BZ) promotions. Naval Academy rank is determined primarily by the Academy "Aptitude for Service" system and the individuals conduct standing. Aptitude reports were submitted on individuals by the upperclassmen and peers within his company. The company officer (a commissioned officer) also submitted a report on each individual. From a combination of this aptitude

ranking and conduct grade, a relative standing was determined for each individual. The midshipman rank held first class (senior) year was predicated on this relative standing. Rank was indicated by the number of stripes worn by the individuals:

1 stripe----Ensign
 2 stripes---Lieutenant Junior Grade
 3 stripes---Lieutenant
 4 stripes---Lieutenant Commander
 5 stripes---Commander
 6 stripes---Captain

It should be noted that the "Aptitude for Service" system did not explicitly measure variables such as; management abilities, organizational skills, communications, etc. These same variables, however, are the primary basis for the Air Force Officer Effectiveness Report (OER) system.

The data presented in Table III-5 was extracted from the questionnaires of the 531 active duty respondents. Only those 102 individuals receiving two or more promotions, below the zone, were considered for the comparison.

Table III-5

Midshipman Rank Vs Below the Zone Promotions

	Number of Stripes						
	None	1	2	3	4	5	6
Highest rank 1st class year	249	86	127	62	5	1	1
Two or more below the zone promotions	17	13	47	21	3	1	0
Percent	6.8	15.1	37.0	33.9	60.0	100.0	0.0

From these figures it is indicated that the 282 of 531 (53.1%) respondents who held stripes at the Academy comprised 85 of the 102 (83.3%) of those receiving two or more BZ promotions. Further, the 196 individuals (36.9%) who held two or more stripes, totalled 72 (70.6%) of those receiving two or more BZ promotions. An apparent correlation does exist between stripes (rank) held at the Academy and BZ promotions, suggesting that the Academy aptitude rating system was a reasonably accurate predictor of Air Force promotional success.

An in depth analysis of these 102 individuals was undertaken as to aeronautical ratings, career fields, educational levels, and expectations. The 531 active duty responses were submitted by 258 pilots, 91 navigators, and 182 non-rated officers. The group (102) receiving two or more BZ promotions was composed of 54 pilots, 17 navigators, and 31 non-rated officers. This reflects the distribution is nearly the same as the total population in each rating division. Table III-6 shows the career field these individuals served in when receiving their BZ promotions.

Table III-6
Career Field Distribution of Individuals Receiving Two
or More BZ Promotions

<u>Career Field</u>	<u>Pilots</u> <u># (%)</u>	<u>Navigators</u> <u># (%)</u>	<u>Non-rated</u> <u># (%)</u>
Operations (includes staff)	13 (24.1)	2 (11.8)	0 (0.0)
Missiles and Space	1 (1.9)	0 (0.0)	5 (16.1)
Scientific and Engineering	39 (72.1)	13 (76.4)	24 (77.4)
Support	<u>1 (1.9)</u>	<u>2 (11.8)</u>	<u>2 (6.5)</u>
Total (102)	54 (100.0)	17 (100.0)	31 (100.0)

Approximately 75% of all individuals, regardless of their aeronautical rating, received their BZ promotions while serving in the Scientific and Engineering career fields. Interestingly, 78.9% of the rated officer's received their BZ promotions while serving in a career field other than these designated as Operations.

The educational level of those receiving BZ promotions is shown below.

Table III-7
Educational Level of Individuals Receiving Two or
More BZ Promotions

<u>Educational Level</u>	<u>Pilots</u> <u># (%)</u>	<u>Navigators</u> <u># (%)</u>	<u>Non-rated</u> <u># (%)</u>
Baccalaureate Degree	4 (7.4)	1 (5.9)	0 (0.0)
Master's Degree	40 (74.1)	15 (88.2)	24 (77.4)
Doctorate Degree	<u>10 (18.5)</u>	<u>1 (5.9)</u>	<u>7 (22.6)</u>
Total	54 (100.0)	17 (100.0)	31 (100.0)

Interestingly, 95.1% of these individuals have a Master's Degree or higher, while 17.6% have a Doctorate Degree. This is consistent with the representation in the Scientific and Engineering career fields. Normally an advanced degree is required in these fields.

From the questionnaires, the ultimate rank expectations of this group breakout as follows:

Table III-8
Ultimate Rank Expected of Individuals Receiving Two
or More BZ Promotions

<u>Rank</u>	<u>Pilots</u> <u># (%)</u>	<u>Navigators</u> <u># (%)</u>	<u>Non-rated</u> <u># (%)</u>
Lt Colonel	2 (3.7)	0 (0.0)	0 (0.0)
Colonel	17 (31.5)	13 (76.5)	18 (58.1)
General	<u>35 (64.8)</u>	<u>4 (23.5)</u>	<u>13 (41.9)</u>
Total	54 (100.0)	17 (100.0)	31 (100.0)

The pilot group has the highest percentage of officers expecting to make General, while navigators have the lowest percentages. This is consistent with the feeling expressed by most navigators, that their opportunity to make General is more limited than for pilots. The two pilots indicating highest rank expectation of Lt Colonel are, a 1950 graduate who has been passed over for Colonel and a 1953 graduate who intends to retire soon and pursue a career as a lawyer.

The career length intentions of this same group were analyzed and produced the following results:

Table III-9
Career Length Intentions of Individuals Receiving Two
or More BZ Promotions

<u>Career Length</u>	<u>Pilots</u> <u># (%)</u>	<u>Navigators</u> <u># (%)</u>	<u>Non-rated</u> <u># (%)</u>
30 or more years	17 (31.5)	1 (5.9)	4 (12.9)
More than 20, less than 30	27 (50.0)	7 (41.2)	22 (71.0)
20 Years	2 (3.7)	3 (17.6)	0 (0.0)
Undecided	<u>8 (14.8)</u>	<u>6 (35.3)</u>	<u>5 (16.1)</u>
Total	54 (100.0)	17 (100.0)	31 (100.0)

As indicated the vast majority intend to remain for more than 20 years. Of the 78 so indicating, 46 (59%) indicated their career length would be primarily determined by subsequent promotions. Of the 19 undecided, 14 (73.7%) indicated subsequent promotions as the determining factor in their career length. The remaining five indicated, continued assignments in their desired career field as the determining factor. The majority, 17 of the 19, graduated prior to 1955. Those five indicating a 20 year career are three members of the Class of 1955 and two members of the Class of 1958. Of these, three indicated jobs on the outside as the determining factor. Subsequent promotions and the desire to settle down into a second

career were the responses given by the other two individuals.

This completes the analysis of the BZ promotion subgroup. Similar analysis for the entire group follows in this section.

Ultimate Rank Expected to Attain

The respondents were asked to indicate the ultimate rank they expect or hope to attain. The active duty responses were tabulated by aeronautical rating and appear below.

Table III-10
Ultimate Rank Expected to Attain

<u>Rank</u>	<u>Pilots</u> <u># (%)</u>	<u>Navigators</u> <u># (%)</u>	<u>Non-rated</u> <u># (%)</u>
Major	4 (1.6)	2 (2.2)	2 (1.1)
Lt Colonel	35 (13.6)	19 (20.9)	43 (23.6)
Colonel	141 (54.6)	55 (60.4)	103 (56.7)
General	<u>78 (30.2)</u>	<u>15 (16.5)</u>	<u>84 (18.6)</u>
Total	258 (100.0)	91 (100.0)	182 (100.0)

As indicated, pilots have higher expectations for ultimate rank while navigators and non-rated officers have nearly the same expectations. This is consistent with the rank distribution within the Air Force today. Understandably, the percentages indicating General are smaller than the percentages of the individuals receiving two or more BZ promotions. However, as with the BZ subgroup, pilots have the highest percentage

while navigators have the lowest percentage.

An analysis of rank expectation by graduating class indicated no definite trends. However, the classes prior to 1953 indicated expectations for General, in percentages slightly higher than the average percentages reflected in Table III-10. Additionally, pilots from the Class of 1957, navigators from the Class of 1954, and non-rated officers from the Class of 1955 indicated expectations of becoming General officers at a percentage double that indicated by the average for their group. No apparent explanation was discovered. Class expectations for Colonel and Lieutenant Colonel closely approximated the averages in the above table.

An attempt to discover a correlation between rank expectation and DAFSC proved inconclusive. With the exception of navigators, serving in flying duties, rank expectations were similar for all DAFSC's. Navigators, serving in flying duties, indicated the lowest expectations of all combinations of DAFSC and aeronautical rating. This could be attributed, in part, to the recent shortage of navigators resulting in continuing in or returning to the cockpit. This group frequently mentioned a limited promotional potential associated with navigator flying duties.

Of the eight individuals indicating Major as their ultimate expected rank, five have received three or more passovers. Only two,

both navigators in flying duties, have not received passovers. Those indicating expectations of Lieutenant Colonel are characterized by either one or more passovers, or 20 years as their intended career length. As might be surmised, those indicating expectation of General rank are characterized by having received BZ promotions. Additionally, 61 of these 127 indicated career length intentions of 30 or more years, and 22 were undecided. Of the remaining 44, all but two indicated that their career length would be dependent on subsequent promotions.

Career Field Distribution

To determine if there was a significant difference in career field distribution between Naval Academy graduates and regular officers from other sources of commission, personnel records were searched for Primary Air Force Specialty Code (PAFSC) and Duty Air Force Specialty Code (DAFSC) identifiers. Complete distributions are included in Appendix C. There is marked similarity between the two distributions. Therefore, since the DAFSC normally reflects the career field an individual is performing in, it was selected for analysis and discussion. Table III-11 indicates the percentages, of the total of 953 active duty Naval Academy graduates in the selected career fields, by aeronautical rating. Directly below these percentages are the percentages of the 28,460 regular officers, including USNA graduates, in the same selected career fields.

Table III-11
 Selected Career Field Distribution of USNA and Total
 Regular Officer Complement

Aeronautical Rating		DAFSC					
		<u>10-14</u>	<u>15</u>	<u>26</u>	<u>27-28</u>	<u>29</u>	<u>55-57</u>
Pilot	USNA	33.9	-	2.9	27.5	9.3	3.3
	Regular	60.8	-	0.9	6.8	1.9	1.2
Navigator	USNA	-	41.0	5.0	25.5	3.7	5.6
	Regular	0.1	63.3	1.2	5.7	1.4	1.2
Non-Rated	USNA	-	-	4.7	38.8	9.8	9.8
	Regular	-	-	2.3	7.3	1.6	3.6

Note:	10-14	Pilot Operations Field, includes staff.
	15	Navigator Operations Field, including staff.
	26	Scientific
	27-28	Research and Development Engineering
	29	Systems Program Management
	55-57	Civil Engineering

As indicated, there has been a substantially greater migration out of the Operations career field by rated USNA graduates than for the entire rated regular component. Of the total 615 rated USNA graduates, 395 (64.2%) have migrated out of the operations career fields. While only 38.4%, 7,471 of the 19,459, non-USNA graduate, rated regular officers experienced the same outward migration. Further analysis shows that 195 of the 300 (65.0%) migrating USNA graduate pilots have moved to the Scientific and Engineering career fields selected in Table III-11.

The same career fields received 64 of the 95 (67.4%) USNA graduate migrating navigators. From the 182 questionnaires returned by active duty non-rated USNA graduates, 106 indicated major career field changes since entering the Air Force. Within this group, 81 (76.4%) have migrated into the selected scientific and engineering career fields. An analysis of the questionnaires returned by those USNA graduates who have undergone career field changes, overwhelmingly indicated strong interest as the principal reason leading to this change in career fields.

Although USNA graduates received a Bachelor of Science Degree in General Engineering, it was not comparable to Engineering Degrees from other institutions. The great emphasis placed on professional subjects, oriented toward preparation for a Naval career, reduced the technical engineering curriculum. In light of this apparent shortcoming, the migratory trend of the USNA graduates into the scientific and engineering career fields is even more significant.

In analysing the 531 questionnaires received from active duty graduates, desired career fields were compared with career fields actually served in. Of the total, 455 (85.7%) indicated satisfaction with the career fields served in. Of the 76 indicating differences between actual and desired career fields, 58 (76.3%) preferred to be in one of the selected scientific and engineering career fields.

This further supplements the aforementioned trend. Only one of the dissatisfied respondents indicated a desire to migrate out of the scientific and engineering career fields.

Reasons for Desired Career Field

This question was designed to determine the personal reasons individuals sought specific career fields. Respondents were asked to indicate three principal reasons and to numerically indicate the order of importance. The frequency and percentages of all responses are tabulated in Appendix A. The following table indicates only those responses receiving 5% or more of the total for at least one of the numerical choices.

Table III-12
Reasons for Desired Career Field

Total responses received Reason	1st Reason 531	2nd Reason 451	3rd Reason 401
	# (%)	# (%)	# (%)
Field of education	65 (12.3)	146 (32.4)	93 (23.2)
Promotional potential	46 (8.7)	117 (25.9)	122 (30.4)
Strong interest	359 (67.6)	88 (19.5)	15 (4.0)
Interested	31 (5.8)	38 (8.4)	24 (6.0)
Preparation for retirement	3 (0.6)	21 (4.7)	101 (25.2)
Total	504 (95.0)	410 (90.9)	356 (88.8)

As shown, these five responses received the overwhelming majority of the total responses from the active duty personnel. "Strong interest," was shown to be the primary reason of more than two of every three respondents. In all, it received mention from 463 of the 531 (87.2%). This indicates the preponderance of job interest in the personal value system of this population.

"Field of education," received the most frequent mention as the secondary reason. It also received frequent mention as a primary and tertiary reason. This mention normally came from individuals in the selected scientific and engineering career fields. All respondents indicating this reason held a Master's Degree or higher.

"Promotional potential," was a frequent secondary or tertiary response. It appears that the measurement of success normally associated with promotions, is an intermediate rather than primary stimulant. This response was indicated by individuals in all career fields and cannot be correlated with one, or a group of career fields. Similarly, the responses were equitably distributed among all graduating classes within this group. However, 77 of the 91 navigators responding (84.6%), indicated this as a reason. This appears to be consistent with the opinions expressed earlier, by the navigators, concerning limited promotional potential for navigators in the operations career fields.

Considering the overwhelming majority of respondents indicating an intent to pursue a second career, after retirement, the low frequency response rate to "preparation for retirement" is somewhat surprising. Principally a third choice, this response was received from individuals either close to retirement, or those indicating a 20 year career intent. This response showed no correlation to aeronautical rating or career field.

Professional Military Education

The last professional service school completed, either in residence or by correspondence, was extracted from the personnel records of all regular officers within the selected year group. The last school completed was assumed to be the highest level completed. A comparison of the USNA graduate versus the regular officer complement, by aeronautical rating and year of commission, is contained in Appendix D. Table III-13 reflects the highest level completed in percentages, by aeronautical rating, for the regular officer complement, including USNA graduates, and the USNA graduates separately. The level classification used in Table III-13 is consistent with that used by Air Force Military Personnel Center. None indicates no service school completed. SOS indicates only Squadron Officers School completed. Those schools categorized as intermediate and senior are:

Intermediate

Inter American or NATO Defense College

United Kingdom Joint Services Staff College
 Armed Forces Staff College
 Marine Corps School Senior Course
 Air Command and Staff College (any nation)
 Command and General Staff College
 Naval War College Command and Staff
 Royal Air Force Air Warfare Course

Senior

National War College (any nation)
 Industrial College of the Armed Forces
 Air War College
 Army War College
 Naval War College

Table III-13

Professional Military Education Completion Level (%)

<u>Level Completed</u>	<u>Pilots</u>		<u>Navigators</u>		<u>Non-rated</u>	
	<u>USNA</u>	<u>Reg.</u>	<u>USNA</u>	<u>Reg.</u>	<u>USNA</u>	<u>Reg.</u>
None	10.6	13.1	7.5	12.4	11.8	29.3
SOS	44.7	52.6	53.4	57.2	50.6	44.2
Intermediate	28.0	25.5	24.8	23.3	26.6	18.9
Senior	<u>16.7</u>	<u>8.8</u>	<u>14.3</u>	<u>7.1</u>	<u>11.0</u>	<u>7.6</u>
Total	100.0	100.0	100.0	100.0	100.0	100.0

As shown a slightly greater percent of USNA graduates have completed some professional military education program. Additionally, the percent completion of intermediate and senior level schools is slightly higher for the USNA graduates than for all regular officers. Although not highly significant, it can be concluded that the USNA graduate has completed professional military education programs at a

percent, at least equal to the regular officer complement, in each rated category. This factor becomes more significant when coupled with the higher educational level attained by the Naval Academy graduates. Educational level will be discussed next.

Educational Level

The educational level, as of June 1972, of all regular officers within the selected year group, was extracted from their personnel records. Individuals enrolled at that time were categorized according to the highest educational level fully completed. A tabulated comparison of the USNA graduates versus the regular component, by aeronautical rating, educational level, and year of commission is included in Appendix E. Table III-14 reflects the percent totals of both groups possessing; a Master's Degree, Master's Degree plus 30 hours, and Doctorate Degree (Ph.D.), by aeronautical rating.

Table III-14

Percent Possessing a Master's Degree or Higher

<u>Educational Level</u>	<u>Pilots</u>		<u>Navigators</u>		<u>Non-Rated</u>	
	<u>USNA Officers</u>	<u>All Reg. Officers</u>	<u>USNA Officers</u>	<u>All Reg. Officers</u>	<u>USNA Officers</u>	<u>All Reg. Officers</u>
Master's	64.1	20.9	64.6	25.2	59.8	30.6
Master's + 30	2.9	0.8	3.7	1.3	8.3	3.7
Ph.D.	<u>2.9</u>	<u>1.3</u>	<u>5.0</u>	<u>1.9</u>	<u>12.1</u>	<u>15.1</u>
Total	69.9	23.0	73.3	28.4	80.2	49.4

Note: The regular component figures include 1,876 medical officers and 706 USNA graduates.

The Naval Academy graduate percentages significantly exceed the percentages of the entire regular components, with the sole exception of non-rated Ph.D.'s. Removal of the 2,583 USNA graduates and medical officers makes the significance more striking. Of the remaining 25,878 regular officers, only 25.7% hold a Master's Degree or higher. Of the 953 active duty USNA graduates, 706 (74.1%) hold a Master's Degree or higher. The personnel record search did not indicate individuals possessing more than one Master's Degree. Based on the 531 active duty questionnaires returned, 43 (8.1%) indicated holding two Master's Degrees. Considering the extent to which the Naval Academy graduates are ahead of their contemporaries in post graduate education, the fact that they are approximately even in professional military education, does become more significant.

Consideration must be given to the fact that the Aviation Cadet and Officer Candidate School were a source of commission during this period. Research was not undertaken by this writer to determine the number of regular officers thus commissioned.

The receipt of advanced education supports the high percentage of career field migration. No determination was made concerning the disciplines in which these advanced degrees were awarded. It is reasonable to assume, however, that a large percent are in disciplines

coincident with the scientific and engineering career fields previously analyzed.

The effect of the South East Asia conflict on advanced education is apparent. Fewer school assignments have been awarded to rated officers during SEA conflict. Further indication of this was apparent when 21 rated officer responses indicated their non-availability for advanced schooling because of the criticality of their rated specialties.

Correlation between Academy class standing quartile and Doctorate Degrees was investigated. No attempt was made to determine the aeronautical rating of these individuals. The distribution of these 62 individuals who achieved their Ph.D.'s is shown below.

Table III-15
USNA Ph.D.'s By Class Standing Quartile

	Class Quartile			
	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>
Number	33	11	12	6
Percent of Total	53.2	17.7	19.4	9.7

The results proved to approximate what would be expected. Those individuals graduating in the top quartile represent the majority of those obtaining a Ph.D.

Career Length Intentions

Active duty questionnaire respondents were asked to indicate their career length intentions, and the principal determining factors influencing this decision. An analysis of the results would denote, not only the career length intent, but also any differences in determining factors for different career lengths. Shown below are the career length intentions, by aeronautical rating.

Table III-16

Naval Academy Graduate Career Length Intentions

<u>Career Length</u>	<u>Pilots # (%)</u>	<u>Navigators # (%)</u>	<u>Non-rated # (%)</u>
30 years or more	87 (33.7)	19 (20.9)	32 (17.6)
More than 20, less than 30	111 (43.0)	39 (42.8)	88 (48.4)
20 Years	32 (12.4)	20 (22.0)	34 (18.7)
Undecided	<u>28 (10.9)</u>	<u>13 (14.3)</u>	<u>28 (15.3)</u>
Total	258 (100.0)	91 (100.0)	182 (100.0)

Pilots have the highest percent indicating 30 or more years, and the smallest percent of individuals indicating 20 years and undecided. The similarity of the distribution of responses between navigators and non-rated officers is marked. In analyzing the responses, by graduating class, the following observations were made:

1. Highest response rates for, 30 or more years, were generally from the years 1949 - 1954, regardless of aeronautical rating. This indicates that those eligible for, or approaching the 20 year retirement option intend to continue in service.

2. High response rates for more than 20, but less than 30 years, were indicated in the 1949-1953 classes of non-rated officers. The pilots and navigators from the classes of 1952-1957 had the highest rate for this response.

3. High response rates, for a 20 year career, came from the classes of 1954 and later for pilots and non-rated officers, while the navigators highest rates came from the middle years (1954-1956).

4. Undecided received highest response rates from classes prior to 1954 for pilots and navigators, and 1955 and later for non-rated officers.

An analysis of career length intentions, by career fields assigned, was inconclusive, with one exception. Navigators, assigned to flying duties, had an unusually high rate of response indicating 20 year career intentions. An analysis of career length versus level of education, also proved inconclusive.

A tabulation of the responses to the three principal factors influencing the intended career length is included in Appendix A.

The factors indicated as first in priority by 20 or more of the 531 respondents are shown below.

Table III-17
Factors Influencing Career Length

<u>Factors</u>	<u>#</u> <u>(%)</u>
Dependent on promotions	327 (61.6)
Dependent on career field	54 (10.2)
Dependent on jobs outside	45 (8.5)
Happy, satisfied with job	38 (7.2)
Desire to settle down, do own thing	<u>23 (4.3)</u>
Total	487 (91.8)

It is apparent that future promotions are the overwhelming factor that will influence career intentions of this group. Promotions was the most frequently mentioned factor for career length intentions, other than 20 years. For those individuals indicating 20 year careers, desire to settle down, and jobs on the outside were the most frequent first choices. All responses were uniformly distributed among the graduating classes, with the exception of, desire to settle down. This response was indicated by classes of 1954 and subsequent. This is consistent with the correlation between this response and the 20 career length intentions.

Dependence on promotions was more frequently chosen by rated than

non-rated officers. Dependence on career field was more common with navigators, but not significantly so. No significant correlations existed between the influencing factors and career fields assigned, aeronautical rating, or educational level.

The overwhelming response rate for promotions presents an interesting comparison. As noted earlier, promotions were not identified as the primary factor in choosing the Air Force or in career field interest. However, promotions ultimately became the determining factor for career length. An analysis of the respondents so indicating suggests that previous promotional success influences this response. As indicated earlier, subsequent promotions was the choice of those individuals who had received two or more below the zone promotions. Similarly, those who have been passed over during their career, indicated their career length would depend on subsequent promotions.

As shown in the Appendix, career field and jobs available on the outside were the dominant secondary and tertiary influencing career length factors. The uniformity of distribution of the secondary and tertiary factors precluded any significant associations. Interestingly, pay was indicated as a motivating factor toward longer careers by early graduating classes and a factor influencing short careers for more recent graduating classes.

Ultimate Retirement Plans

Active duty respondents were asked to respond with their ultimate retirement plans. Individuals were asked to indicate the type of work and industry preferred, if any. The complete distribution of responses is included in Appendix A. The following table is an extract from that data, showing the most frequent responses, by type of work and the industry desired. Since some respondents selected more than one choice, a total of 575 responses were tabulated. Percentages are based on this total number.

Table III-18

Ultimate Retirement Plans

<u>Type of Work</u>	<u>Aerospace</u>		<u>Industry Non- Aerospace</u>		<u>Education</u>		<u>Gov't</u>	
	<u>#</u>	<u>(%)</u>	<u>#</u>	<u>(%)</u>	<u>#</u>	<u>(%)</u>	<u>#</u>	<u>(%)</u>
Technical	15	(2.6)	15	(2.6)	0	(0.0)	6	(1.0)
Management	69	(12.0)	129	(22.4)	6	(1.0)	36	(6.3)
Teaching	0	(0.0)	0	(0.0)	129	(22.4)	4	(0.7)
Private Business	4	(0.7)	55	(9.2)	1	(0.2)	2	(0.3)

All individuals indicating Technical type of work were in the selected scientific and engineering career fields, and hold a Master's Degree or higher. Of the 36 total, 29 (80.6%) were non-rated officers. The seven rated officer, Technical responses were; one to Aerospace, four to Non-Aerospace, and two to Government.

The large percentage of respondents, 255 (44.3%) selecting Management is predictable. Based on the experience gained, managing

personnel and resources, in a service career, this choice is to be expected. In this case, 191 (74.9%) of this group were rated officers. Of these, 38 chose Aerospace, 113 Non-Aerospace, three Education, 28 Government, while nine choose other types of scientific and engineering career fields, and 196 (76.9%) hold a Master's Degree or higher.

The total, 136 selecting Teaching as a retirement occupation breaks down as follows; 88 (64.7%) were rated officers, all but seven of the individuals hold a Master's Degree or higher, and 91 (66.9%) indicated serving a tour as a faculty member during their career to date.

Private business, was selected by a total of 65 individuals. Of these, 46 (70.8%) were rated officers, and only 29 (44.6%) hold a Master's Degree or higher.

Non-rated officers indicate a greater interest in, Aerospace, industry than do the rated officers. Within the rated officers, earlier classes favored, Aerospace and Government employment, while the more recent graduating classes strongly favor, Non-Aerospace or Education employment. Non-Rated officers showed no such class distinction.

Additionally, 27 (4.7%) responded they were undecided while 15 (2.6%) plan to just retire. One respondent stipulated his forthcoming retirement, at 20 years, resulting from his acceptance into medical school upon retirement.

The results show that the overwhelming majority will pursue a second career, after retirement. The vast majority of this group will seek employment with an established firm, rather than starting a private business.

This concludes the data analysis of the active duty personnel. Separatee and retiree data analysis will follow.

Separatees

The following section is devoted to a discussion of the data, pertinent to the 201 separatees with returned useable questionnaires. This data is assumed to be representative of the entire group of separatees. The average length of commissioned service, within this group is 5.9 years, with two years being the shortest, and 16 years the longest. Only data not previously covered will be discussed in this section.

Do You Believe You Made the Proper Choice

Responses from this group, as to the certainty of the Air Force being the proper choice, are tabulated below, by aeronautical rating. Once again, this writer is aware of the presence of dissonance reduction in this type question.

Table III-19

Certainty of Having Made the Proper Choice

<u>Certainty Level</u>	<u>Pilots</u> <u># (%)</u>	<u>Navigators</u> <u># (%)</u>	<u>Non-Rated</u> <u># (%)</u>
Very definitely	31 (48.7)	10 (38.5)	45 (43.3)
Reasonably certain	13 (18.3)	6 (23.1)	29 (27.9)
Uncertain	11 (15.5)	4 (15.4)	11 (10.6)
Possibly wrong decision	5 (7.0)	2 (7.7)	10 (9.6)
Wrong decision	<u>11 (15.5)</u>	<u>4 (15.3)</u>	<u>9 (8.6)</u>
Totals	71 (100)	26 (100)	104 (100)

Here, 134 (66.7%) of this group are, at least reasonably certain of having made the proper choice. The non-rated officers have the highest percentage in this grouping. From comments, volunteered by the respondents, this is partially due to the variety of career fields available for non-rated officers. As might be expected, the percentages of "less than reasonably certain" are substantially higher than for the active duty respondents. Correlations between certainty of having made the proper choice and reasons for separating will be discussed later.

Career Fields Assigned

An analysis of the career fields to which assigned, at the time of separation was made. The distribution of the separatees, in these grouped career fields, by aeronautical rating is shown below.

Table III-20

Career Field Assigned at Time of Separation

<u>Career Field</u>	<u>Pilots</u> <u># (%)</u>	<u>Navigators</u> <u># (%)</u>	<u>Non-Rated</u> <u># (%)</u>
Operations	57 (80.3)	23 (88.4)	0 (0.0)
Missiles	3 (4.2)	2 (7.7)	25 (24.1)
Scientific and Engineering	8 (11.3)	0 (0.0)	18 (17.3)
Support	<u>3 (4.2)</u>	<u>1 (3.9)</u>	<u>61 (58.6)</u>
Totals	71 (100.0)	26 (100.0)	104 (100.0)

Considering the fact that the majority of this group had separated upon, or shortly after their initial commitment, the high percentages of rated officers in operations is predictable. Some career field migration was experienced by those individuals who remained in service more than four years before separating. Interestingly, the scientific and engineering career fields had the lowest number of separatees. This is partially explained by the post graduate education associated with these career fields. However, these are the same career fields that have attracted such a large percentage of those remaining on active duty.

Reasons for Desired Career Fields

The purpose was to discover the reasons separatees expressed for desired career fields. This would allow correlation with the results they expressed for separating, and the endeavors pursued since

separation. The total distribution of responses is in Appendix A. Those reasons receiving mention by 20 or more individuals are shown below. Once again many individuals did not give three principal reasons resulting in smaller totals for second and third choice.

Table III-21

Reasons for Desired Career Fields

Total Responses Received <u>Responses</u>	1st Reason 201	2nd Reason 119	3rd Reason 94
	<u># (%)</u>	<u># (%)</u>	<u># (%)</u>
Field of Education	6 (3.0)	35 (29.4)	24 (25.5)
Promotional Potential	10 (5.0)	33 (27.8)	21 (22.3)
Strong Interest	125 (62.1)	13 (10.9)	4 (4.3)
Interested	19 (9.5)	8 (6.8)	6 (6.4)
Preparation for Separation	6 (3.0)	9 (7.6)	14 (14.8)
No Choice, Directed Duty	<u>21 (10.4)</u>	<u>0 (0.0)</u>	<u>1 (1.1)</u>
Totals	187 (93.0)	98 (82.5)	70 (74.4)

These responses comprise the majority of the responses received. Strong interest again was the first choice of nearly two of every three respondents. All individuals so responding served four or more years. Also, 90 of the 97 rated officers (92.2%) indicated this as their first choice.

Field of education received the greatest percent of secondary and tertiary responses. Here the majority of the responses apparently

referred to Air Force short course, occupational schooling, (e.g., missile school, procurement school, intelligence school), rather than formal college education. However, those individuals who remained in service long enough to receive post graduate education also mentioned this reason.

Once again promotional potential and preparation for retirement were secondary and tertiary responses. This supports the intermediate, rather than primary importance of these factors in ones career desires.

No choice, directed duty was submitted, by individuals who separated upon completion of their initial commitment. Additionally, 26 of the 201 (13.1%) indicated desires for career fields other than the ones served in. This response was equally divided between individuals separating at completion of their initial commitment, and those separating subsequent to that time.

Professional Military and Post Graduate Education

Returned questionnaires showed, 74 of the separatees (36.8%) had completed at least the Squadron Officers School. Additionally, 17 (8.5%) had completed an intermediate or higher level of professional military education, either in residence or by correspondence. Those who separated with eight or more years of service account for 53 of the 74 having completed some schooling. It should be noted, that

44 of the total 201 separatees, related they are or were active in either a Reserve or National Guard program. This could partially account for the completion percentages.

An analysis of the post graduate education of the separatees found, 86 (42.8%) hold a Master's Degree or higher. Of this group, 21 (24.4%) received a Master's Degree while serving on active duty. Comparing this percentage with the active duty figures makes the attainment of advanced education appear to be active duty oriented.

Reasons for Separation

A complete tabulation of the responses received is included in Appendix A. Many respondents did not list three reasons resulting in fewer numbers of secondary and tertiary responses. Those reasons, receiving 20 or more responses are tabulated below.

Table III-22

Reasons for Separation

Total Responses Received Reason	1st Reason 201	2nd Reason 175	3rd Reason 139
	# (%)	# (%)	# (%)
Unable to get promoted	14 (7.0)	8 (4.5)	11 (7.9)
Undesirable career field	8 (4.0)	22 (12.5)	8 (5.8)
Unable to get advanced education	22 (10.9)	14 (12.5)	11 (7.9)
Better jobs on outside	49 (24.4)	40 (22.7)	23 (16.6)
General dissatisfaction	42 (20.9)	35 (19.9)	28 (20.1)
Money	7 (3.5)	10 (5.7)	7 (5.0)
Unable to get new career field	15 (7.5)	8 (4.5)	7 (5.0)
Family	6 (3.0)	12 (6.8)	8 (5.8)
Moves	9 (4.5)	10 (5.7)	6 (4.4)
Air Force attitudes	7 (3.5)	5 (2.8)	11 (7.9)
Do own thing	8 (4.0)	6 (3.4)	7 (5.0)
Totals	187 (93.2)	170 (96.6)	127 (91.4)

The analysis of the distribution of responses, by aeronautical rating, proved to be so nearly uniform that further breakdown would not enhance this analysis. Any significant findings, relating to a specific rating will be so indicated.

As reflected in the figure, nearly one quarter of the separatees listed, "Better jobs on the outside," as the primary reason. This reason also received the largest total number of responses. This can be explained, to some degree, by the rapid expansion of the aerospace and supporting industries during this time frame. The cyclic action of the employment opportunities, experienced in recent years, could have a noticeable effect on this factor.

"General dissatisfaction," the least specific of all responses, received a remarkably uniform distribution among the rank ordered responses. Since specifics were not mentioned, this writer does not intend to subjectively expound on this factor.

The interest in advanced education, as reflected by the educational level figures in this section, appears significant. However, 28 out of 47 (59.6%), of the respondents choosing this reason did not indicate they had applied for advanced education. This raises a doubt as to the sincerity expressed in this response. Supporting this doubt is the indication that 16 of these 28 (57.1%), did not complete advanced education after separation. Additionally, 13 (27.7%) of this group

were rated individuals serving in directed duty assignments. All but two of the individuals selecting this response were in the last four years of the time period under study. The rated requirements of the South East Asian conflict once again had a marked effect on opportunity.

All of those indicating, "Undesirable career fields," as a response were in critical career fields, or directed duty assignments. Of these, 48.6% were navigators. Supplementary to this total, 5.8% of the total responses related, although not dissatisfied with present career fields, the inability to transition to a more desirable field. Once again the importance of career field on individuals personal values is apparent.

Of the 33 responding, "Unable to get promoted;" 21 (63.6%) had not served the length of time normally associated with the promotion in question. Only three (9.1%) of the respondents reflected having been passed over for promotion.

Money, family, moves, Air Force attitudes. and the independence associated with being able to "Do one's own thing" received frequent mention. Interestingly, 13 of the 23 (56.5%) mentioning, Air Force attitudes, had also mentioned either USNA and Navy officers attitudes, or informal Air Force attitudes as a reason for choosing the Air Force.

Civilian Occupation

To determine the type of work and the industry affiliated with,

separates were asked to list their actual and desired endeavors since leaving the service. A complete tabulation of the results is included in Appendix A. The following table is extracted from that data indicating those areas receiving the greatest frequency of responses with percent of total responses.

Table III-23
Civilian Occupants

<u>Type of Work</u>	<u>Aerospace</u>	<u>Industry Non Aerospace</u>	<u>Govern- ment</u>	<u>Banking Finance</u>
	<u># (%)</u>	<u># (%)</u>	<u># (%)</u>	<u># (%)</u>
Sales	15 (7.5)	8 (4.0)	1 (0.5)	4 (2.0)
Technical	24 (11.9)	15 (11.9)	5 (2.5)	0 (0.0)
Management	19 (9.5)	34 (16.9)	8 (4.0)	5 (2.5)
Private Business	0 (0.0)	11 (5.5)	0 (0.0)	2 (1.0)

As with the analysis of active duty personnel, management received the greatest number, 70 (34.8%) of all responses. Once again, service oriented experiences provide impetus. Technical and Sales endeavors, with 44 (21.9%) and 39 (19.4%) respectively, are the next most chosen. The Non-Aerospace and Aerospace Industries, with 68 (33.8%) and 58 (28.9%) respectively, have attracted the slight majority of these individuals.

Of significance is the very few, 7 (3.5%), pursuing a teaching

career as compared with the expressed intentions of the active duty personnel. The lower advanced educational level, by percentile, of this group serves to substantiate this factor.

Interestingly, 29 (14.4%) of this group related a difference between their desired and actual type of work or industry. This compares with the 76 (14.3%) of active duty personnel indicating dissatisfaction with their present career field. This similarity may be more than coincidental. It may be indicative of the inability of people to find their "ideal" job. This inability is apparently present within the civilian, as well as the military environment.

Retirees

Because of the limited number of retirees responding, 27, and the fact that only a small part of the population surveyed have reached the 20 year, voluntary retirement tenure, a detailed analysis is not presented. After removal of the four individuals who received early medical retirements, the average length of commissioned service is only 19.8 years. Therefore, any analysis would be based on, what is normally considered, early retirements and the results would be biased.

The retired group includes: five pilots, seven navigators, and 15 non-rated officers. Of these, 15 (53.5%) responded they were at least reasonably certain they had made the proper decision, four

(14.9%) were uncertain, and three (11.1%) disclosed they had made the wrong decision in choosing the Air Force.

The career field distribution of this group, upon retirement was; nine from operations, eight from scientific and engineering fields, seven from support functions, two from missiles, and one instructor. Only two (7.4%) of these individuals, both rated, expressed dissatisfaction with the career fields served in during their careers. Principal reasons given for desired career fields were; strong interest, field of education, and promotional potential, with 30.4%, 24.6%, and 15.9% of the total responses, respectively. Preparation for retirement received only 10.1% of the total responses, and all were tertiary reasons.

Some level of professional military education had been completed by 21 (77.8%) of the retirees. Three of those not completing this education were early medical retirees. A Master's Degree or higher was attained by 24 (88.9%) of this group, while on active duty. Since retirement, two of the remaining three have received a Master's Degree.

An analysis of the reasons given for retirement provided the following results. Of the first choice reasons, both failure to be promoted, and better jobs on the outside received eight (29.6%) of the responses; while health reasons received five (18.5%). Most frequently mentioned secondary reasons were; better jobs on the outside and health. The only tertiary reasons receiving more than one response

were better jobs on the outside and general dissatisfaction.

All retiree respondents have entered a civilian occupation. Of this group, nine have entered the technical field, eight the management field, and four the teaching field. The remainder are dispersed into other fields. The retirees having been attracted, by number, to specific industries are; eight in Aerospace industries, seven in Non-Aerospace industries, and three each to Educational Institutions and Government. Once again the remainder are scattered. Only two retirees have started their own private business.

It must be noted that, the small sample size and the time frame considered, make the results inconclusive. A follow on study in the late 1980's would be much more informative and conclusive concerning an analysis of the USNA graduates who have retired from the Air Force.

IV. Summary and Conclusions

In this chapter, a brief summary of the research effort is presented. Conclusions drawn from this study are also presented.

Summary

In 1949 the Secretary of Defense established an informal policy designed to provide the new service, the United States Air Force, with service Academy graduate, potential career officers. This policy was later enacted as Public Law 325. Basically, this policy allowed up to 25% of the graduating class of a service academy, with the consent of the Secretaries of the respective services, to accept appointments as commissioned officers in an armed force not under the military department having jurisdiction of the graduating Academy. Coincident with the first graduating class of the Air Force Academy the percent allowable was reduced to 12-1/2%. However, the Secretary of Defense would provide for equitable distribution, should more than the allowable percent seek appointment in another service. Effective with the graduating class of 1969, the Secretary of the Navy has not consented to such transfer by Naval Academy graduates. It is apparent that the Naval Academy graduate, in the Air Force, is becoming a "vanishing breed".

This research was designed as a historical analysis of how individuals specifically trained for a career in the Navy have performed

in the Air Force. Evaluation was performed by examining factors such as; retention, promotions, professional military education, post graduate education and career fields. The Air Force regular officer complement was selected as a basis of comparison. This group included all regular officers, regardless of source of commission.

In order to provide the maximum homogeneity within the Naval Academy population, the graduating classes of 1949 through 1960, inclusive, were selected. The class of 1949 was the first class to have the option stated above. The class of 1960 was the last class to graduate with the predetermined academic curriculum. Additionally, the number of Air Force entrants diminished appreciably after 1960. The regular officer complement was reduced to those officers with the same years of commission.

Through the outstanding support of the Directorate of Personnel Plans, Research and Analysis Division, Headquarters USAF, information was extracted from the records of all individuals considered in this study. Extracted information included: PAFSC, DAFSC, year of commission, rank, last professional military education completed, and educational level. This population numbered 28,460 in size. The data so gathered was tabulated by percentages and used for comparative purposes.

To supplement this data, for the Naval Academy graduates, a

questionnaire was designed. This questionnaire was tested by Naval Academy graduates in the local area to eliminate imperfections and misunderstandings. The final questionnaire was mailed to the 1972 Naval Academy graduates who had selected the Air Force during the prescribed time frame. (1930 less 124 dead, less 14 listed as Missing in Action or Prisoner of War). Apparently, 1,385 of these reached the addressees, and the 759 (54.8%) useable returns comprise the data base for portions of this study. Questionnaires provided individual responses to questions requiring personal opinions as well as historical and biographical information. Midshipman rank held, reasons for choosing the Air Force, career endeavors and satisfactions are examples of the question types. Separatees and retirees were asked their reasons for leaving, and occupational endeavors since that time. Responses were then coded and tabulated by frequency and percentage.

These two sources provided the data used in this study. Comparative analysis was used to determine how well the Naval Academy graduates had progressed considering the possible obstacles to be overcome from the service "switch". Frequency analysis was used to determine majority or plurality responses to opinion seeking questions. Correlations between Naval Academy performance (i.e., rank and class standing) and Air Force performance measures (i.e., below the zone promotions and educational level) were studied. The results of the analysis are presented in the conclusions.

Conclusions

The conclusions are presented in the order in which they were analyzed in the study. The relative significance is indicated with each conclusion.

1. Retention rate, based on number currently on active duty against total number entered was 53.5%. Although no specific figures were provided, Retention Analysis Division, Navy Bureau of Personnel indicated that this is considerably higher than Navy retention of Academy graduates for the same time period.

2. Major reasons indicated for choosing the Air Force, in order of total responses received, were; personal preference, better educational potential, dislike for Naval duties, and better promotional potential. These reasons received over two-thirds of the responses and were rather equally distributed by class, aeronautical rating, and career field. Although not indicated as frequently, the Air Force flying program and equipment, physical qualifications, immediate flying training, family life, and career fields available received a significant percent of the responses.

3. An overwhelming majority, approximately 89%, of active duty graduates were at least reasonably certain they had made the proper choice of entering the Air Force upon graduation. This compares with approximately 67% of the separatees.

4. Naval Academy graduates have been promoted at a rate slightly ahead of their regular officer contemporaries. Two graduates of the Class of 1952 are now General Officers. A positive correlation does exist between Naval Academy academic standing and subsequent Air Force active duty promotions. The majority of those ahead of their contemporaries are from the upper quartiles, while those behind from the lower quartiles. There is also a high correlation between the Midshipman rank achieved and below the zone promotions within the Air Force. The 53.1% who held one or more stripe, first class year, comprised 83.3% of the group receiving two or more below the zone promotions. Interestingly, approximately 80% of the rated officers indicated receiving below the zone promotions while serving in a career field other than those designated as Operations. Most of these were received while serving in scientific and engineering oriented fields.

5. Approximately 80% of the Naval Academy active duty respondents expect to attain the rank of Colonel or above. Significantly more pilots expect to make General than do either the navigators or the non-rated officers.

6. There has been a highly significant migration of Naval Academy graduates into the scientific and engineering career fields. For the Naval Academy graduates; 42.2% of the pilots, 37.9% of the navigators, and 66.6% of the non-rated officers now have DAFSCs in

these fields. The same figures for the regular officer component are; 9.2%, 9.0%, and 15.6% respectively. By DAFSC, 53.2% of the Naval Academy rated officers have migrated out of the Operations field. Comparatively, only 27.4% of the regular component have made this outward migration.

7. Respondents stated, personal interest as the strongest factor in seeking their current desired career field. Their field of education and the promotional potential received significant, and nearly equal mention.

8. Naval Academy graduates have a slightly, but not significantly higher level completion rate of professional military education programs. However, when the post graduate educational attainment is considered, the ability to maintain this level of completion, does become significant.

9. Naval Academy graduates have attained a significantly higher formal education level than the entire regular officer group. Percent of Naval Academy graduates with a Master's degree or higher are; pilots - 69.8%, navigators - 73.3%, and non-rated - 80.2%. The same figures for the regular component are; 22.9%, 28.4%, and 49.5%.

10. When asked to express career length intentions, 71.6% responded with more than 20 years, while 12.2% remain undecided. Promotions was the primary factor determining length. Career fields and jobs on the outside were the secondary and tertiary factors most frequently mentioned.

11. Ultimate retirement plans for the active duty USNA graduates indicated interest for management and teaching disciplines. Non-aerospace industry and education were the most frequently mentioned areas of endeavor.

12. The primary reasons given for leaving the Air Force by the separatees were; better jobs on the outside and general dissatisfaction with the Air Force respectively. Separatees indicated management, technical, and sales as the primary types of work. Approximately 30% indicate association with the aerospace industries, while a similar percent chose the non-aerospace industries.

13. Retirees related; failure to be promoted, better jobs on the outside, and health as the principal reasons for retirement. Technical and management endeavors are favored, with the aerospace and non-aerospace industries receiving about the same percent. The significance of the retiree figures is inconclusive as a result of the small survey population, resulting from the time frame of this study.

14. Interestingly, a constant level of job satisfaction and correspondingly, job dissatisfaction seems to exist. Of the active duty USNA graduates surveyed, approximately only 14% indicated dissatisfaction with present career field assignment. The same percent of separatees indicated a desire to pursue an endeavor other than the one of present employment.

The results of this research would seem to indicate that the Naval Academy graduate has been able to overcome the obstacles associated with pursuit of a career, other than the one for which he had been specifically trained. Numerous factors can be offered as having contributed to this success. Certainly the high degree of competition for a limited number of appointments to the Academy must be considered a significant factor.

Although specifically oriented to Naval operations, the Academy training properly prepares the graduate to understand the issues relevant to the role of commissioned officers, regardless of the branch of service. Also, the highly competitive environment of the Academy creates an esprit and tends to instill a desire to excel in all future endeavors. These factors, which would affect performance, might be considered desirable traits for all branches of service. The Air Force has made no official effort to provide special career monitoring, or incentives for the Naval Academy graduates. Additionally, no informal "protective association", similar to that assumed to exist within the Navy, is apparent within the Air Force. The absence of a traditional link between this group and the Air Force does not seem to have influenced the success of the individuals. As shown, the progress of the Naval Academy graduate in the Air Force has been equal to, or better than their regular officer contemporaries in all normally accepted measures of performance. Of great

significance is the educational level attained by this group. Also, the substantial migration into, and success experienced in, the scientific and engineering career fields are significant. The degree of success in achieving promotions has exceeded that of the regular officer complement. This success in achieving promotions, as well as the fact that the Naval Academy is now represented in the Air Force General Officer ranks, indicates that this group has fared well in the Air Force. The opportunity for a Naval Academy graduate becoming Air Force Chief of Staff remains to be seen. Only in the 1990's, when members of this group will have ended their careers, will one be able to assess the impact of Naval Academy graduates on the Air Force.

QUESTION 5

As best you can recall, list in numerical order of importance your reasons for choosing the Air Force.

ACTIVE DUTY

Frequency of response
by numerical choice

<u>Response</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Total</u>
Dislike for Naval duties	84	68	54	206
Better promotional potential	46	75	53	174
Better educational potential	64	68	70	202
Personal preference.	112	79	66	257
Hereditary reasons	9	5	6	20
Immediate flying training.	39	8	6	53
Flying program/equipment	47	40	7	94
Physical qualifications.	66	9	3	78
Careers available.	27	21	7	55
Informal Air Force attitudes	6	4	2	12
USNA/Naval Officer attitudes	10	12	10	32
Seasickness.	2	7	5	14
Better family life	13	30	10	53
Prior Air Force service.	1	2	0	3
Easy separation from Air Force . . .	3	0	0	3
Other.	<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u>
Total	531	428	299	1258

QUESTION 5

As best you can recall, list in numerical order of importance your reasons for choosing the Air Force.

ACTIVE DUTY

Percent of responses
by numerical choice

<u>Response</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Total</u>
Dislike for Naval duties	15.8	15.9	18.1	16.4
Better promotional potential	8.7	17.5	17.7	13.8
Better educational potential	12.0	15.9	23.4	16.1
Personal preference.	21.1	18.5	22.1	20.4
Hereditary reasons	1.7	1.2	2.0	1.6
Immediate flying training.	7.3	1.9	2.0	4.2
Flying program/equipment	8.9	9.3	2.3	7.5
Physical qualifications.	12.4	2.1	1.0	6.2
Careers available.	5.1	4.9	2.3	4.4
Informal Air Force attitudes	1.1	0.9	0.7	1.0
USNA/Naval Officer attitudes	1.9	2.8	3.3	2.6
Seasickness.	0.4	1.6	1.7	1.1
Better family life	2.4	7.0	3.3	4.3
Prior Air Force service.	0.2	0.5	0.0	0.2
Easy separation from Air Force	0.6	0.0	0.0	0.2
Other.	<u>0.4</u>	<u>0.0</u>	<u>0.0</u>	<u>0.1</u>
Total*	100.0	100.0	100.0	100.0

* Do not necessarily add to 100.0% due to round offs.

QUESTION 5

As best you can recall, list in numerical order of importance your reasons for choosing the Air Force.

SEPARATEES

<u>Response</u>	Frequency of response by numerical choice			
	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Total</u>
Dislike for Naval duties	40	22	11	73
Better promotional potential	28	36	27	91
Better educational potential	27	27	27	81
Personal preference.	26	23	21	70
Hereditary reasons	1	1	2	4
Immediate flying training.	23	1	0	24
Flying program/equipment	14	10	3	27
Physical qualifications.	22	4	1	27
Careers available.	9	6	1	16
Informal Air Force attitudes	0	4	1	5
USNA/Naval Officer attitudes	4	3	1	8
Seasickness.	0	0	1	1
Better family life	5	11	6	22
Prior Air Force service.	1	2	0	3
Easy separation from Air Force	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>
Total	201	150	102	453

QUESTION 5

As best you can recall, list in numerical order of importance your reasons for choosing the Air Force.

SEPARATEES

Percent of responses
by numerical choice

<u>Response</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Total</u>
Dislike for Naval duties	19.9	14.6	10.8	16.1
Better promotional potential	13.9	24.0	26.5	20.1
Better educational potential	13.4	18.0	26.5	17.9
Personal preference.	12.9	15.3	20.6	15.4
Hereditary reasons	0.5	0.7	1.9	0.9
Immediate flying training.	11.5	0.7	0.0	5.3
Flying program/equipment	7.0	6.7	2.9	6.0
Physical qualifications.	10.9	2.7	1.0	6.0
Careers available.	4.5	4.0	1.0	3.5
Informal Air Force attitudes	0.0	2.7	1.0	1.1
USNA/Naval Officer attitudes	2.0	2.0	1.0	1.8
Seasickness.	0.0	0.0	1.0	0.2
Better family life	2.5	7.3	5.9	4.8
Prior Air Force service.	0.5	1.3	0.0	0.7
Easy separation from Air Force	<u>0.5</u>	<u>0.0</u>	<u>0.0</u>	<u>0.2</u>
Total*	100.0	100.0	100.0	100.0

Do not necessarily add to 100.0% due to round offs.

QUESTION 5

As best you can recall, list in numerical order of importance your reasons for choosing the Air Force.

RETIREEES

Frequency of response
by numerical choice

<u>Response</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Total</u>
Dislike for Naval duties	2	2	3	7
Better promotional potential	6	7	4	17
Better educational potential	4	3	2	9
Personal preference.	2	1	1	4
Hereditary reasons	0	0	1	1
Immediate flying training.	3	0	0	3
Flying program/equipment	1	1	0	2
Physical qualifications.	4	2	0	6
Careers available.	2	1	1	4
Informal Air Force attitudes	1	0	0	1
USNA/Naval Officer attitudes	0	0	1	1
Better family life	2	2	0	4
Prior Air Force service.	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>
Total	27	20	13	60

QUESTION 5

As best you can recall, list in numerical order of importance your reasons for choosing the Air Force.

RETIREEES

Percent of responses
by numerical choice

<u>Response</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Total</u>
Dislike for Naval duties	7.4	10.0	23.1	11.7
Better promotional potential . . .	22.2	35.0	30.8	28.3
Better educational potential . . .	14.8	15.0	15.3	15.0
Personal preference.	7.4	5.0	7.7	6.7
Hereditary reasons	0.0	0.0	7.7	1.7
Immediate flying training.	11.1	0.0	0.0	5.0
Flying program/equipment	3.7	5.0	0.0	3.3
Physical qualifications.	14.8	10.0	0.0	10.0
Careers available.	7.4	5.0	7.7	6.7
Informal Air Force attitudes . . .	3.7	0.0	0.0	1.7
USNA/Naval Officer attitudes . . .	0.0	0.0	7.7	1.7
Better family life	7.4	10.0	0.0	6.7
Prior Air Force service.	<u>0.0</u>	<u>5.0</u>	<u>0.0</u>	<u>1.7</u>
Total*	100.0	100.0	100.0	100.0

* Do not necessarily add to 100.0% due to round offs.

QUESTION 6

Do you believe you made the proper choice?

ACTIVE DUTY

Frequency of Response

<u>Response</u>	<u>Pilots</u>	<u>Navigators</u>	<u>Non-Rateds</u>
	<u>#</u> <u>(%)</u>	<u>#</u> <u>(%)</u>	<u>#</u> <u>(%)</u>
Very definitely	175 (67.8)	49 (53.8)	128 (70.3)
Reasonably certain	56 (21.7)	27 (29.7)	37 (20.3)
Uncertain	11 (4.3)	4 (4.4)	4 (2.2)
Possibly wrong decision	13 (5.0)	7 (7.7)	6 (3.3)
Wrong decision	<u>3 (1.2)</u>	<u>4 (4.4)</u>	<u>7 (3.9)</u>
Total	258 (100)	91 (100)	182 (100)

SEPARATEES

<u>Response</u>	<u>Pilots</u>	<u>Navigators</u>	<u>Non-Rateds</u>
	<u>#</u> <u>(%)</u>	<u>#</u> <u>(%)</u>	<u>#</u> <u>(%)</u>
Very definitely	31 (43.7)	10 (38.5)	45 (43.3)
Reasonably certain	13 (18.3)	6 (23.1)	29 (27.9)
Uncertain	11 (15.5)	4 (15.4)	11 (10.6)
Possibly wrong decision	5 (7.0)	2 (7.7)	10 (9.6)
Wrong decision	<u>11 (15.5)</u>	<u>4 (15.3)</u>	<u>9 (8.6)</u>
Total	71 (100)	26 (100)	104 (100)

RETIREEES

<u>Response</u>	<u>Pilots</u>	<u>Navigators</u>	<u>Non-Rateds</u>
	<u>#</u> <u>(%)</u>	<u>#</u> <u>(%)</u>	<u>#</u> <u>(%)</u>
Very definitely	3 (60.0)	2 (28.6)	5 (33.3)
Reasonably certain	1 (20.0)	0 (0.0)	4 (26.7)
Uncertain	0 (0.0)	1 (14.3)	3 (20.0)
Possibly wrong decision	0 (0.0)	3 (42.8)	2 (13.3)
Wrong decision	<u>1 (20.0)</u>	<u>1 (14.3)</u>	<u>1 (6.7)</u>
Total	5 (100)	7 (100)	15 (100)

QUESTION 10

The following list reflects the frequency and percent of individuals, by aeronautical rating, expressing disparities between actual and desired career fields served in while serving on active duty.

<u>Present Status</u>	<u>Pilots</u> <u>#</u> <u>(%)</u>	<u>Navigators</u> <u>#</u> <u>(%)</u>	<u>Non-rated</u> <u>#</u> <u>(%)</u>
Active duty	38 (15.1)	15 (16.9)	21 (12.1)
Separatee	11 (15.7)	4 (15.4)	11 (10.7)
Retiree	<u>1 (20.0)</u>	<u>1 (14.3)</u>	<u>0 (0.0)</u>
Total	50 (15.3)	20 (16.4)	32 (11.0)

QUESTION 11

Indicate the three principal reasons for your desired career field(s), in order of importance. (1st, 2nd, 3rd)

ACTIVE DUTY

Frequency of response
by numerical choice

<u>Response</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Total</u>
Pre-service experience	7	13	11	31
Field of education	65	146	93	304
Promotional potential.	46	117	122	285
Strong interest.	359	88	16	463
Interested	31	38	24	93
Working conditions	4	10	8	22
Flying, front line duty.	2	2	1	5
No choice, directed.	3	0	2	5
Preparation for command.	1	3	3	7
Prestige	4	7	9	20
Geographical location(s)	0	1	1	2
Preparation for retirement	3	21	101	122
Dislike for present duty	4	5	10	19
Other.	<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u>
Total	531	451	401	1383

QUESTION 11

Indicate the three principal reasons for your desired career field(s), in order of importance. (1st, 2nd, 3rd)

ACTIVE DUTY

Percent of responses
by numerical choice

<u>Response</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Total</u>
Pre-service experience	1.3	2.9	2.7	2.2
Field of education	12.3	32.4	23.2	22.0
Promotional potential.	8.7	25.9	30.4	20.6
Strong interest.	67.6	19.5	4.0	33.5
Interested	5.8	8.4	6.0	6.7
Working conditions	0.7	2.2	2.0	1.6
Flying, front line duty.	0.4	0.4	0.3	0.4
No choice, directed duty	0.6	0.0	0.5	0.4
Preparation for command.	0.2	0.7	0.7	0.5
Prestige	0.7	1.6	2.2	1.4
Geographical location(s)	0.0	0.2	0.3	0.1
Preparation for retirement	0.6	4.7	25.2	9.0
Dislike for present duty	0.7	1.1	2.5	1.4
Other.	<u>0.4</u>	<u>0.0</u>	<u>0.0</u>	<u>0.1</u>
Total*	100.0	100.0	100.0	100.0

* Do not necessarily add to 100.0% due to round offs.

QUESTION 11

Indicate the three principal reasons for your desired career field(s), in order of importance. (1st, 2nd, 3rd)

SEPARATEES

Frequency of response
by numerical choice

<u>Response</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Total</u>
Pre-service experience	2	3	6	11
Field of education	6	35	24	65
Promotional potential.	10	33	21	64
Strong interest.	125	13	4	142
Interested	19	8	6	33
Preparation for separation	6	9	14	29
Dislike for previous duty.	2	5	5	12
Working conditions	0	4	3	7
Combine R&D and flying	0	1	0	1
Flying, front line duty.	1	1	2	4
No choice, directed.	21	0	1	22
Preparation for command.	1	1	0	2
Prestige	0	3	4	7
Physical qualifications.	5	0	1	6
Geographical location(s)	0	1	1	2
Flight pay	1	2	1	4
Other.	<u>3</u>	<u>1</u>	<u>0</u>	<u>4</u>
Total	201	119	94	414

QUESTION 11

Indicate the three principal reasons for your desired career field(s), in order of importance. (1st, 2nd, 3rd)

SEPARATES

<u>Response</u>	<u>Percent of responses by numerical choice</u>			
	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Total</u>
Pre-service experience	1.0	2.5	6.4	2.7
Field of education	3.0	29.4	25.5	15.7
Promotional potential.	5.0	27.8	22.3	15.5
Strong interest.	62.1	10.9	4.3	34.3
Interested	9.5	6.8	6.4	8.0
Preparation for separation	3.0	7.6	14.8	7.0
Dislike for previous duty.	1.0	4.2	5.3	2.9
Working conditions	0.0	3.4	3.2	1.7
Combine R&D and flying	0.0	0.8	0.0	0.2
Flying, front line duty.	0.5	0.8	2.1	1.0
No choice, directed duty	10.4	0.0	1.1	5.3
Preparation for command.	0.5	0.8	0.0	0.5
Prestige	0.0	2.5	4.3	1.7
Physical qualifications.	2.5	0.0	1.1	1.4
Geographical location(s)	0.0	0.8	1.1	0.5
Flight pay	0.5	1.7	1.1	1.0
Other.	<u>1.5</u>	<u>0.8</u>	<u>0.0</u>	<u>1.0</u>
Total*	100.0	100.0	100.0	100.0

* Do not necessarily add to 100.0% due to round offs.

QUESTION 11

Indicate the three principal reasons for your desired career field(s), in order of importance. (1st, 2nd, 3rd)

RETIREEES

Frequency of response
by numerical choice

<u>Response</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Total</u>
Pre-service experience	2	1	0	3
Field of education	6	10	1	17
Promotional potential.	1	4	6	11
Strong interest.	14	6	1	21
Interested	3	3	0	6
Preparation for retirement	0	0	7	7
Dislike for previous duty.	0	0	1	1
Working conditions	1	0	0	1
Combine R&D and flying	1	0	0	1
Prestige	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>
Total	27	24	28	69

QUESTION 11

Indicate the three principal reasons for your desired career field(s), in order of importance. (1st, 2nd, 3rd)

RETIREEES

Percent of responses
by numerical choice

<u>Response</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Total</u>
Pre-service experience	7.4	4.1	0.0	4.3
Field of education	22.2	41.7	5.6	24.6
Promotional pctential.	3.7	16.7	33.3	15.9
Strong interest.	51.9	25.0	5.6	30.4
Interested	11.1	12.5	0.0	8.7
Preparation for retirement	0.0	0.0	38.8	10.1
Dislike for previous duty.	0.0	0.0	5.6	1.5
Working conditions	3.7	0.0	0.0	1.5
Combine R&D and flying	3.7	0.0	0.0	1.5
Prestige	<u>0.0</u>	<u>0.0</u>	<u>5.6</u>	<u>1.5</u>
Total*	100.0	100.0	100.0	100.0

* Do not necessarily add to 100.0% due to round offs.

QUESTION 14

Indicate 3 major reasons for your career length intentions.

ACTIVE DUTY ONLY

<u>Response</u>	Frequency of response by numerical choice			
	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Total</u>
Depends on promotions.	325	83	34	442
Depends on career field.	58	152	72	282
Depends on getting education . . .	3	9	15	27
Depends on jobs outside.	41	130	141	312
Reasons of health.	4	7	31	42
Happy, job satisfaction.	39	11	18	68
Remain in present location	3	4	3	10
Family/children.	8	8	8	24
Next assignment(s)	9	16	20	45
No future, passed over	5	2	2	9
Obligation to serve.	2	5	2	9
Depends on timing.	2	0	2	4
Settle down, do "own thing". . . .	18	9	10	37
Dissatisfied	3	11	4	18
Personal reasons	2	0	0	2
Age at retirement.	2	1	3	6
Pay.	4	5	7	16
Public criticism of military . . .	0	2	1	3
Security	2	2	3	7
Dislike travel	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>
Total	531	458	376	1365

QUESTION 14

Indicate 3 major reasons for your career length intentions.

ACTIVE DUTY ONLY

<u>Response</u>	Percent of responses by numerical choice			
	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Total</u>
Depends on promotions.	61.2	18.1	9.0	32.4
Depends on career field.	10.9	33.2	19.2	20.7
Depends on getting education . . .	0.6	2.0	4.0	2.0
Depends on jobs outside.	7.7	28.4	37.5	22.9
Reasons of health.	0.7	1.5	8.2	3.0
Happy, job satisfaction.	7.3	2.4	4.8	5.0
Remain in present location	0.6	0.9	0.8	0.7
Family/children.	1.5	1.8	2.1	1.7
Next assignment(s)	1.7	3.5	5.3	3.3
No future, passed over	0.9	0.4	0.5	0.7
Obligation to serve.	0.4	1.1	0.5	0.7
Depends on timing.	0.4	0.0	0.5	0.3
Settle down, do "own thing". . . .	3.4	2.0	2.7	2.7
Dissatisfied	0.6	2.4	1.1	1.3
Personal reasons	0.4	0.0	0.0	0.1
Age at retirement.	0.4	0.2	0.8	0.4
Pay.	0.7	1.1	1.9	1.2
Security	0.4	0.4	0.8	0.5
Public criticism of military . . .	0.0	0.4	0.3	0.2
Dislike travel	<u>0.0</u>	<u>0.2</u>	<u>0.0</u>	<u>0.1</u>
Total*	100.0	100.0	100.0	100.0

* Do not necessarily add to 100.0% due to round off.

QUESTION 15

Ultimate retirement plans by type of work and industry.

ACTIVE DUTY

<u>Industry</u>	<u>Type of Work</u>				
	<u>S</u> <u>a</u> <u>l</u> <u>e</u> <u>s</u>	<u>T</u> <u>e</u> <u>c</u> <u>h</u>	<u>M</u> <u>g</u> <u>m</u> <u>t</u>	<u>T</u> <u>e</u> <u>a</u> <u>c</u> <u>h</u>	<u>P</u> <u>v</u> <u>t</u> <u>B</u> <u>z</u>
Aerospace.	1	15	69	0	4
Non-aerospace.	12	15	129	0	53
Politics	0	0	9	3	2
Education.	0	0	6	129	1
Fed., State, Local Government. . .	0	6	36	4	2
Social actions	0	0	3	0	2
Law.	0	0	0	0	7
Medical.	0	0	1	0	1
Real estate.	4	0	0	0	1
Investment	2	0	1	0	0
Other.	1	0	1	0	4
Farming.	0	0	0	0	8
Physical education, coaching . . .	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>
Total	20	36	255	137	85

Additional responses

Undecided.	27
Just retire.	15

QUESTION 16

Number of years commissioned service completed at the time of separation or retirement.

		Number of Individuals	
<u>Years of Service</u>		<u>Retirees</u>	<u>Separatees</u>
2	. . . . .	1 (m)	1
3	. . . . .	1 (m)	41
4	. . . . .	1 (m)	51
5	. . . . .	0	26
6	. . . . .	0	16
7	. . . . .	1 (m)	6
8	. . . . .	0	17
9	. . . . .	0	16
10	. . . . .	0	9
11	. . . . .	0	5
12	. . . . .	0	6
13	. . . . .	0	3
14	. . . . .	0	1
15	. . . . .	0	2
16	. . . . .	0	1
17	. . . . .	1	0
18	. . . . .	4	0
19	. . . . .	4	0
20	. . . . .	8	0
21	. . . . .	2	0
22	. . . . .	4	0
Total		27	201

(m) - Indicates medical retirement

QUESTION 17

List in numerical order of importance, (1st, 2nd, 3rd) the three principal reasons for your separation.

SEPARATEES

Frequency of response
by numerical choice

<u>Response</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Total</u>
Unable to get promoted	14	8	11	33
Undesirable career fields.	8	22	8	38
Unable to get advanced education .	22	14	11	47
Better jobs on outside	49	40	23	112
Health reasons	6	2	2	10
General dissatisfaction.	42	35	28	105
Money.	7	10	7	24
Unable to get new career field . .	15	8	7	30
Family	6	12	8	26
Moves.	9	10	6	25
Air Force attitudes.	7	5	11	23
Enter ministry	1	0	2	3
"Do own thing"	8	6	7	21
Conscientious objector	2	0	4	6
Discrimination	1	0	0	1
Personal reasons	1	0	0	1
No opportunity for General	0	1	1	2
Non-recognition.	1	2	1	4
Travel	<u>2</u>	<u>1</u>	<u>2</u>	<u>5</u>
Total	201	176	139	515

QUESTION 17

List in numerical order of importance, (1st, 2nd, 3rd) the three principal reasons for your retirement.

RETIREEES

Frequency of response
by numerical choice

<u>Response</u>	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>Total</u>
Unable to get promoted	8	2	0	10
Undesirable career fields.	0	2	1	3
Better jobs on outside	8	4	5	17
Health reasons	5	3	0	8
General dissatisfaction.	0	1	4	5
Money.	0	1	0	1
Unable to get new career field . .	3	1	0	4
Family	1	0	0	1
Moves.	1	2	1	4
Air Force attitudes.	1	0	1	2
"Do own thing"	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>
Total	27	16	13	56

QUESTION 18

Principal types of work and industries worked in since separating from the service.

SEPARATEES

Type of Work

<u>Industry</u>	<u>S</u> <u>a</u> <u>l</u> <u>e</u> <u>s</u>	<u>T</u> <u>e</u> <u>c</u> <u>h</u>	<u>M</u> <u>s</u> <u>n</u> <u>t</u>	<u>T</u> <u>e</u> <u>a</u> <u>c</u> <u>h</u>	<u>P</u> <u>v</u> <u>t</u> <u>B</u> <u>z</u>
Aerospace.	15	24	19	0	0
Non-aerospace.	8	15	34	0	11
Politics	1	1	3	6	0
Education.	0	0	1	0	0
Fed., State, Local Government. . .	1	5	8	1	0
Investments.	8	0	6	0	2
Real estate.	5	0	0	0	4
Social actions	0	0	1	0	0
Insurance.	1	0	0	0	0
Law.	0	0	0	0	7
Medical.	0	0	1	0	3
Commercial airlines.	0	8	0	0	0
Foreign Government	0	1	0	0	0
Ministry	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	39	55	73	7	27

QUESTION 18

Principal types of work and industries worked in since retirement from service.

RETIREEES

<u>Industry</u>	Type of Work				
	<u>S</u> <u>a</u> <u>l</u> <u>e</u> <u>s</u>	<u>T</u> <u>e</u> <u>c</u> <u>h</u>	<u>M</u> <u>g</u> <u>m</u> <u>t</u>	<u>T</u> <u>e</u> <u>a</u> <u>c</u> <u>h</u>	<u>P</u> <u>v</u> <u>t</u> <u>B</u> <u>z</u>
Aerospace.	0	4	3	0	1
Non-aerospace.	0	3	3	0	1
Politics	0	0	0	1	0
Education.	0	0	0	3	0
Investments.	1	0	1	0	0
Real estate.	1	0	0	0	0
Social actions	0	0	1	0	0
Fed., State, Local Government. . .	<u>0</u>	<u>2</u>	<u>1</u>	<u>0</u>	<u>0</u>
Total	2	9	9	4	2

Additional response

"A little of everything" 1

Appendix B

**Retention &
Rank**

RETENTION

<u>Year</u>	<u>USNA into USAF</u>	<u>Active Duty</u>	<u>% Ret.</u>	<u>Dead</u>	<u>POW MIA</u>	<u>Adj. % Ret.</u>
1949	55	13	23.6	7	0	27.1
1950	171	56	32.7	16	0	36.1
1951	178	70	39.3	17	2	44.7
1952	192	92	47.9	16	2	53.4
1953	227	115	50.7	23	3	57.8
1954	221	132	59.7	10	1	63.0
1955	185	91	49.2	9	1	52.3
1956	169	80	47.3	8	2	50.9
1957	206	117	56.8	10	1	60.2
1958	185	112	60.5	4	1	62.4
1959	83	48	57.8	2	1	60.5
1960	58	27	46.6	2	0	48.2

1961	46	22	47.8	3	0	51.2
1962	81	36	44.4	2	2	48.1
1963	56	25	44.6	0	1	46.4
1964	4	3	75.0	0	0	75.0
1965	10	8	80.0	0	0	80.0
1966	4	3	75.0	1	0	100.0
1967	10	10	100.0	0	0	100.0
1968	1	1	100.0	0	0	100.0

Average retention from selected population:

Unadjusted - - - - 49.4%

Adjusted - - - - 53.5%

Retention Rates

Tabulated below are the retention rates by graduating class, and number retained and percent retention for each class standing quartile.

<u>Year</u>	<u>Number Entered</u>	<u>Class Rate</u>	<u>Class Standing Quartile</u>			
			<u>1st</u>	<u>2nd</u>	<u>3rd</u>	<u>4th</u>
1949	55	27.1	3 (30.0)	3 (20.0)	2 (11.8)	5 (38.5)
1950	171	36.1	14 (40.0)	13 (31.0)	18 (39.1)	11 (22.9)
1951	178	44.7	15 (36.6)	18 (37.5)	19 (46.3)	18 (37.5)
1952	192	53.4	27 (57.4)	20 (40.8)	22 (43.1)	23 (51.1)
1953	227	57.8	34 (53.1)	25 (46.3)	28 (50.9)	28 (51.9)
1954	221	63.0	26 (57.8)	31 (57.4)	33 (54.1)	42 (68.9)
1955	185	52.3	18 (39.1)	20 (50.0)	32 (62.7)	21 (43.8)
1956	169	50.9	26 (63.4)	21 (50.0)	19 (46.3)	14 (31.1)
1957	206	60.2	27 (56.3)	28 (63.6)	34 (60.7)	28 (48.3)
1958	185	62.4	18 (60.0)	23 (65.7)	26 (50.0)	45 (66.2)
1959	83	60.5	9 (64.3)	8 (47.1)	18 (58.1)	13 (61.9)
1960	<u>58</u>	<u>48.2</u>	<u>3 (25.0)</u>	<u>4 (36.4)</u>	<u>7 (53.8)</u>	<u>13 (59.1)</u>
Total	1930	Avg. 53.5	220 (50.8)	214 (47.5)	258 (50.1)	261 (49.2)

Class rate is determined by deducting those deceased from the total number entered and adding those POW or MIA members to the active duty members of that class. Quartile percents are determined by the number on active duty from that quartile, divided by the total entering the Air Force from that quartile. The overall retention rate, unadjusted, is 49.4%.

Rank

This Appendix contains rank information extracted from Directorate of Personnel Plans, Research and Analysis Division, Headquarters United States Air Force records, as of 1 June 1972.

Abbreviations applicable to this Appendix are:

S - - - - - Source of commission

n - - - - - Number

NA - - - - - Naval Academy graduates

R - - - - - Total regular officer complement

Tabulations reflect the percent holding each rank, by year of commission.

PILOTS

YEAR	S	n	CAPT	MAJ	LTCOL	COL	BGEN	MGEN
1949	NA R	8 975	--- ---	--- 0.10	25.00 49.85	75.00 48.82	--- 1.13	--- 0.10
1950	NA R	30 676	--- ---	--- 1.92	26.67 47.78	73.33 50.00	--- 0.30	--- ---
1951	NA R	41 772	--- ---	4.88 8.16	51.22 52.46	43.90 39.12	--- 0.26	--- ---
1952	NA R	61 1061	--- 0.09	8.20 7.73	68.85 78.33	22.95 13.76	--- 0.09	--- ---
1953	NA R	69 1684	--- ---	11.59 14.07	76.81 80.58	11.60 5.35	--- ---	--- ---
1954	NA R	75 1426	--- ---	9.33 15.15	84.00 82.33	6.67 2.52	--- ---	--- ---
1955	NA R	46 1728	--- 0.12	13.04 55.21	84.78 43.46	2.18 1.21	--- ---	--- ---
1956	NA R	36 1249	--- 0.16	86.11 90.47	11.11 8.81	2.78 0.56	--- ---	--- ---
1957	NA R	41 943	--- 0.43	85.37 96.39	14.63 3.18	--- ---	--- ---	--- ---
1958	NA R	22 922	--- 1.08	95.45 97.18	4.55 1.63	--- 0.11	--- ---	--- ---
1959	NA R	21 960	--- 1.35	100.00 97.61	--- 1.04	--- ---	--- ---	--- ---
1960	NA R	4 916	--- 3.38	100.00 96.40	--- 0.22	--- ---	--- ---	--- ---
TOTAL	NA R	454 13312	--- 0.47	30.84 47.48	52.64 41.27	16.52 10.64	--- 0.12	--- 0.01

NAVIGATORS

YEAR	S	n	CAPT	MAJ	LTCOL	COL	BGEN	NGEN
1949	NA	2	---	---	50.00	50.00	---	---
	R	244	---	---	64.75	35.25	---	---
1950	NA	10	---	---	50.00	50.00	---	---
	R	228	---	0.90	66.22	32.88	---	---
1951	NA	8	---	---	37.50	62.50	---	---
	R	269	---	8.92	64.69	26.39	---	---
1952	NA	10	10.00	10.00	70.00	10.00	---	---
	R	329	0.30	11.85	84.50	3.35	---	---
1953	NA	8	---	12.50	87.50	---	---	---
	R	560	0.18	20.71	77.50	1.61	---	---
1954	NA	28	---	17.86	82.14	---	---	---
	R	560	0.35	18.04	80.55	1.06	---	---
1955	NA	17	---	29.41	70.59	---	---	---
	R	560	---	52.86	47.14	---	---	---
1956	NA	16	---	87.50	12.50	---	---	---
	R	783	0.13	82.37	17.24	0.26	---	---
1957	NA	15	---	93.33	6.67	---	---	---
	R	560	0.18	93.93	5.89	---	---	---
1958	NA	31	3.23	96.77	---	---	---	---
	R	641	2.03	95.47	2.50	---	---	---
1959	NA	9	---	88.89	11.11	---	---	---
	R	602	2.33	97.17	0.50	---	---	---
1960	NA	7	---	100.00	---	---	---	---
	R	811	3.70	96.30	---	---	---	---
TOTAL	NA	161	1.24	52.80	38.51	7.45	---	---
	R	6142	1.02	60.63	34.11	4.23	---	---

NON-RATED

YEAR	S	n	CAPT	MAJ	LTCOL	COL	BGEN	MGEN
1949	NA	3	---	---	---	100.00	---	---
	R	246	---	---	41.46	57.32	1.22	---
1950	NA	16	---	---	37.50	62.50	---	---
	R	298	---	1.00	55.70	42.96	0.34	---
1951	NA	21	---	---	57.14	42.86	---	---
	R	627	---	5.90	59.33	34.77	---	---
1952	NA	21	---	---	80.95	19.05	---	---
	R	640	0.15	9.06	74.69	16.10	---	---
1953	NA	38	2.63	10.53	73.68	13.16	---	---
	R	685	---	13.14	72.70	14.16	---	---
1954	NA	29	---	13.79	82.76	3.45	---	---
	R	745	---	16.24	75.17	8.59	---	---
1955	NA	28	---	17.86	78.57	3.57	---	---
	R	745	---	48.92	43.15	7.93	---	---
1956	NA	28	---	85.71	10.72	3.57	---	---
	R	737	---	66.49	25.37	8.14	---	---
1957	NA	61	---	88.52	9.84	1.64	---	---
	R	824	0.12	82.52	14.08	3.28	---	---
1958	NA	59	5.08	91.53	3.39	---	---	---
	R	1112	3.24	86.06	9.44	1.26	---	---
1959	NA	18	5.56	94.44	---	---	---	---
	R	1150	3.91	87.83	7.22	1.04	---	---
1960	NA	16	---	100.00	---	---	---	---
	R	1192	6.04	88.42	5.03	0.51	---	---
TOTAL	NA	338	1.48	52.66	35.50	10.36	---	---
	R	9001	1.72	54.05	33.86	10.32	0.05	---

ALL OFFICERS

YEAR	S	n	CAPT	MAJ	LTCOL	COL	BGEN	MGEN
1949	NA	13	---	---	23.08	76.92	---	---
	R	1465	---	0.07	50.92	47.99	0.96	0.07
1950	NA	56	---	---	33.93	66.07	---	---
	R	1202	---	1.50	53.24	45.01	0.25	---
1951	NA	70	---	2.86	51.43	45.71	---	---
	R	1668	---	7.43	57.01	35.43	0.12	---
1952	NA	92	1.09	6.52	71.74	20.65	---	---
	R	2030	0.15	8.82	78.18	12.81	0.05	---
1953	NA	115	0.87	11.30	76.52	11.31	---	---
	R	2929	0.03	15.12	78.15	6.69	---	---
1954	NA	132	---	12.12	83.33	4.55	---	---
	R	2731	0.07	16.04	80.01	3.88	---	---
1955	NA	91	---	17.58	80.22	2.20	---	---
	R	3033	0.07	53.22	44.05	2.65	---	---
1956	NA	80	---	86.25	11.25	2.50	---	---
	R	2769	0.11	81.80	15.60	2.49	---	---
1957	NA	117	---	88.03	11.11	0.86	---	---
	R	2327	0.26	90.89	7.69	1.16	---	---
1958	NA	112	3.57	93.75	2.68	---	---	---
	R	2675	2.21	92.15	5.08	0.56	---	---
1959	NA	48	2.08	95.84	2.08	---	---	---
	R	2712	2.65	93.36	3.54	0.44	---	---
1960	NA	27	---	100.00	---	---	---	---
	R	2919	4.56	93.11	2.12	0.21	---	---
TOTAL	NA	953	0.73	42.29	44.18	12.80	---	---
	R	28460	0.99	52.40	32.38	9.16	0.07	0.00

Relative Rank Standing

This tabulation reflects the relative standing, ahead (A) or behind (B) the regular officer component mean rank. Mean rank is defined as that rank held by the greatest percent of the regular officers with the particular year of commission. Shown is the percent of Naval Academy graduates ahead and behind the mean by class standing quartile.

Class Standing Quartile

<u>Year</u>	<u>Mean</u>	<u>1 st</u>		<u>2 nd</u>		<u>3 rd</u>		<u>4 th</u>	
		(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)
1949	LCol	100.0	0.0	66.7	0.0	100.0	0.0	60.0	0.0
1950	LCol	71.4	0.0	84.6	0.0	55.6	5.6	54.5	0.0
1951	LCol	53.3	6.7	38.9	0.0	47.4	0.0	27.8	5.6
1952	LCol	29.6	0.0	25.0	10.0	27.3	4.5	4.3	21.7
1953	LCol	20.6	11.8	8.0	20.0	10.7	7.1	3.6	10.7
1954	LCol	3.8	0.0	6.5	12.9	3.0	24.2	7.1	7.1
1955	Maj	94.4	0.0	80.0	0.0	87.5	0.0	61.9	0.0
1956	Maj	19.2	0.0	14.3	0.0	10.5	0.0	14.3	0.0
1957	Maj	18.5	0.0	17.9	0.0	8.8	0.0	3.6	0.0
1958	Maj	5.6	5.6	4.3	4.3	0.0	3.8	2.2	2.2
1959	Maj	11.1	0.0	0.0	0.0	5.6	5.6	0.0	5.6
1960	Maj	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Number Ahead and Behind by Quartile

<u>Quartile</u>	<u>No.</u>	<u>Ahead (%)</u>	<u>Behind (%)</u>
1st	220	66(30.0)	6 (2.7)
2nd	214	54(25.4)	12 (5.6)
3rd	258	65(25.4)	14 (5.4)
4th	<u>261</u>	<u>36(13.8)</u>	<u>14 (5.3)</u>
Total	953	221(23.2)	46 (4.8)

Appendix C

Career Fields

Career Fields

This Appendix contains the career field distribution of the Naval Academy graduates and the total regular officer complement, by aeronautical rating, for each year of commission. Data was extracted from Headquarters United States Air Force personnel records, as of 1 June 1972.

Abbreviations applicable to this Appendix are:

S - - - - - Source of commission
RAT - - - - - Aeronautical rating
NA - - - - - Naval Academy graduates
R - - - - - Total regular officer complement
P - - - - - Pilot
N - - - - - Navigator
N-R - - - - - Non-rated officer
DAFSC - - - - - Duty Air Force Specialty Code
PAFSC - - - - - Primary Air Force Specialty Code

Tabulations reflect the percent in each selected career field, by year of commission.

Air Force Specialty Codes

<u>Code</u>	<u>Title</u>
00X - - -	Commander and Director specialties
021 - - -	International Politico-Military Affairs
090 - - -	Special duty identifiers (Air Attache, Recruiting, Instructor, Historical Officer)
10-14 - - -	Pilot Operations, including staff
15 - - -	Navigator Operations, including staff
16-17 - - -	Aircraft Control and Weapons Director
18 - - -	Missile Operations
20 - - -	Space Systems
21 - - -	Special Operations
25 - - -	Weather
26 - - -	Scientific
27-28 - - -	Research & Development, Management and Engineering
29 - - -	Systems Program Management
30 - - -	Communications-Electronics
31 - - -	Missile Maintenance
4X - - -	Aircraft Maintenance, Avionics, and Munitions
51 - - -	Computer Technology
55-57 - - -	Civil Engineering, Cartography
60-66 - - -	Logistics
67-69 - - -	Comptroller
80-82 - - -	Intelligence, Security Police, Special Investigation
9X - - -	Medical
OTHER - - -	Open Mess Management, Disaster Preparedness, Audio-Visual, Personnel Resources Management, Information, Band, Legal, Chaplain, Patients, Pilot and Navigator Trainees, Social Actions and Race Relations Officers

DAFSC

YEAR	S	RAT.	00X	021	090	10-14	15	16-17
1949	NA	P	37.50	---	---	---	---	---
	R	P	22.49	0.21	---	26.56	---	1.54
	NA	N	50.00	---	---	---	---	---
	R	N	11.07	0.40	---	---	30.74	1.64
1950	NA	N-R	33.33	---	---	---	---	---
	R	N-R	12.60	---	---	0.40	---	---
	NA	P	30.00	---	---	10.00	---	---
	R	P	25.44	0.15	---	28.70	---	1.18
1951	NA	N	10.00	---	---	---	10.00	---
	R	N	7.46	0.43	0.43	---	31.58	0.41
	NA	N-R	6.25	---	---	---	---	---
	R	N-R	13.76	---	---	---	---	---
1952	NA	P	17.07	---	---	17.07	---	---
	R	P	15.03	0.13	0.26	32.64	---	0.28
	NA	N	---	---	---	---	37.50	---
	R	N	10.41	---	---	---	36.80	1.48
1953	NA	N-R	---	---	---	---	---	---
	R	N-R	11.61	0.32	---	0.16	---	0.64
	NA	P	14.75	---	---	19.67	---	1.64
	R	P	9.14	---	0.19	51.27	---	1.03
1954	NA	N	---	---	---	---	10.00	---
	R	N	4.86	---	0.30	---	50.76	1.21
	NA	N-R	4.76	---	---	---	---	---
	R	N-R	7.81	0.63	---	---	---	0.94
1955	NA	P	5.80	---	---	28.98	---	---
	R	P	4.69	0.18	0.06	60.15	---	0.95
	NA	N	---	---	---	---	62.50	---
	R	N	3.52	---	---	---	59.82	0.36
1956	NA	N-R	---	---	---	---	---	---
	R	N-R	4.37	---	0.15	---	---	1.31
	NA	P	8.00	---	1.33	42.66	---	1.33
	R	P	2.66	---	0.14	67.11	---	0.98
1957	NA	N	3.57	---	---	---	42.86	---
	R	N	2.14	---	0.54	---	61.07	0.36
	NA	N-R	10.34	---	---	---	---	---
	R	N-R	2.68	0.40	0.40	---	---	2.15

DAFSC

YEAR	S.	RAT.	00X	021	090	10-14	15	16-17
1955	NA	P	---	---	---	47.82	---	---
	R		1.01	0.06	0.12	67.01	---	1.16
	NA	N	---	---	---	---	23.53	---
1956	R		1.07	0.18	0.18	---	64.28	0.36
	NA	N-R	---	---	---	---	---	---
	R		0.94	0.13	---	---	---	1.07
1957	NA	P	2.78	---	---	47.22	---	---
	R		0.40	0.16	0.16	67.97	---	0.88
	NA	N	---	---	---	---	50.00	---
1958	R		0.77	0.13	---	---	68.58	0.51
	NA	N-R	3.57	---	---	---	---	---
	R		0.41	0.27	0.14	---	---	5.29
1959	NA	P	---	---	---	39.02	---	---
	R		0.32	---	0.32	74.76	---	0.32
	NA	N	---	---	---	---	40.00	---
1960	R		---	---	0.18	---	70.36	0.32
	NA	N-R	---	---	---	---	---	---
	R		0.24	0.12	0.12	---	---	3.40
1961	NA	P	---	---	---	59.09	---	---
	R		---	---	0.11	72.77	---	0.76
	NA	N	---	---	---	---	51.61	---
1962	R		0.31	---	0.15	---	70.82	0.94
	NA	N-R	---	---	---	---	---	---
	R		0.81	0.09	0.30	---	---	3.50
1963	NA	P	---	---	---	47.62	---	---
	R		0.10	0.10	0.33	71.46	---	1.46
	NA	N	---	---	---	---	44.45	---
1964	R		---	0.17	---	0.16	70.26	0.50
	NA	N-R	---	---	---	---	---	---
	R		0.26	0.09	0.35	---	---	2.34
1965	NA	P	---	---	---	50.00	---	---
	R		---	---	---	77.18	---	0.76
	NA	N	---	---	---	---	85.71	---
1966	R		---	---	---	0.12	78.30	0.61
	NA	N-R	---	---	---	---	---	---
	R		0.17	---	0.42	---	---	0.62

DAFSC

YEAR	S	RAT.	18	20	21	25	26	27-28
1949	NA	P	---	---	---	---	---	25.00
	R		0.41	0.82	0.10	0.30	0.20	6.56
	NA	N	---	---	---	---	---	---
1950	R		0.40	0.40	---	1.23	0.82	6.97
	NA	N-R	---	---	---	---	---	---
	R		0.40	---	0.40	2.03	0.40	5.50
1951	NA	P	---	---	---	---	---	30.00
	R		0.29	0.15	0.29	0.15	0.44	7.54
	NA	N	10.00	---	---	---	---	40.00
1952	R		1.75	---	---	0.41	0.41	7.02
	NA	N-R	---	---	---	---	---	37.50
	R		0.33	---	---	2.01	0.67	5.70
1953	NA	P	---	---	---	---	2.44	26.83
	R		0.26	0.52	---	1.03	0.78	9.84
	NA	N	---	---	---	---	---	37.50
1954	R		1.86	0.32	0.32	1.48	1.11	4.09
	NA	N-R	---	---	---	---	---	52.39
	R		0.16	0.16	0.16	2.87	0.16	6.86
1955	NA	P	---	---	1.64	---	1.64	42.62
	R		0.38	0.47	---	0.47	0.38	7.16
	NA	N	10.00	---	---	---	10.00	50.00
1956	R		1.52	0.30	0.30	3.04	1.82	5.77
	NA	N-R	---	---	---	4.76	4.76	42.56
	R		0.31	0.31	---	7.34	2.19	6.40
1957	NA	P	---	1.45	---	---	2.89	30.43
	R		0.06	0.24	0.06	0.53	0.47	6.83
	NA	N	12.50	---	---	---	---	25.00
1958	R		0.53	0.71	0.18	0.89	0.53	5.71
	NA	N-R	2.63	---	---	---	5.26	42.12
	R		1.02	0.44	---	5.98	2.04	7.00
1959	NA	P	---	---	---	---	4.00	18.67
	R		0.28	0.21	0.07	0.21	0.70	6.45
	NA	N	---	---	---	---	7.14	21.43
1960	R		0.53	0.18	0.18	0.53	1.60	6.25
	NA	N-R	---	---	---	---	10.34	34.48
	R		1.42	0.80	---	2.95	2.01	6.17

DAFSC

YEAR	S	RAT.	18	20	21	25	26	27-28
1955	NA	P	---	---	---	---	---	32.61
	R		0.40	0.52	0.29	0.35	1.39	5.96
	NA	N	---	---	---	---	11.77	52.94
1956	R		0.18	0.36	---	0.18	1.25	6.25
	NA	N-R	---	---	---	---	3.57	35.72
	R		2.01	0.54	---	4.02	2.55	4.02
1957	NA	P	---	---	---	---	5.55	25.00
	R		0.48	0.32	---	0.16	1.36	7.12
	NA	N	---	---	---	---	---	31.25
1958	R		0.77	0.25	---	0.25	1.15	5.75
	NA	N-R	---	---	---	3.57	7.14	46.43
	R		1.90	0.40	0.13	4.48	2.03	7.19
1959	NA	P	---	---	---	---	2.44	24.39
	R		0.32	0.21	---	---	1.06	5.30
	NA	N	6.67	---	---	---	6.67	13.33
1960	R		0.36	---	0.18	0.18	1.43	7.32
	NA	N-R	3.28	3.28	---	1.64	4.92	44.26
	R		2.30	1.21	---	3.52	1.94	7.40
1961	NA	P	---	---	---	---	4.55	18.18
	R		0.65	---	---	---	1.41	8.13
	NA	N	---	---	---	---	6.45	6.45
1962	R		0.78	---	---	0.15	0.47	6.08
	NA	N-R	---	---	---	1.70	1.70	32.20
	R		2.70	0.18	0.09	3.32	3.23	8.90
1963	NA	P	---	---	---	---	9.52	19.05
	R		0.21	0.31	---	0.10	1.35	6.66
	NA	N	---	---	---	---	---	33.33
1964	R		0.50	0.50	---	0.16	2.16	5.98
	NA	N-R	5.56	---	---	---	11.11	38.88
	R		3.48	0.35	0.17	4.52	3.22	9.74
1965	NA	P	---	---	---	---	---	---
	R		0.54	0.22	0.11	0.11	1.64	5.35
	NA	N	---	---	---	---	---	---
1966	R		1.23	---	---	---	0.86	3.21
	NA	N-R	---	6.25	---	---	6.25	18.75
	R		4.78	0.50	---	3.44	3.35	7.38

DAFSC

YEAR	S	RAT.	29	30	31	4X	51	55-57
1949	NA	P	25.00	---	---	12.50	---	---
	R	P	3.38	1.64	0.41	7.07	0.10	1.33
	NA	N	---	---	---	---	---	---
1950	R	N	0.40	2.46	2.05	5.73	1.23	2.46
	NA	N-R	---	---	---	---	---	---
	R	N-R	1.20	8.76	1.02	4.38	1.31	2.04
1951	NA	P	6.67	---	---	3.33	---	6.67
	R	P	1.48	0.88	0.59	7.10	0.74	1.18
	NA	N	---	---	---	---	---	10.00
1952	R	N	1.31	3.94	2.19	4.38	0.88	0.88
	NA	N-R	12.50	6.25	6.25	---	6.25	6.25
	R	N-R	3.02	4.36	0.33	3.69	1.68	1.34
1953	NA	P	19.51	---	---	2.44	---	2.44
	R	P	3.25	1.42	0.26	7.51	0.39	1.42
	NA	N	---	---	---	---	12.50	12.50
1954	R	N	4.46	3.34	0.74	4.83	1.11	2.97
	NA	N-R	9.52	---	---	---	---	9.52
	R	N-R	3.03	5.10	0.64	3.99	1.75	3.51
1955	NA	P	4.92	---	---	3.28	---	3.28
	R	P	3.49	0.09	---	5.84	0.38	1.70
	NA	N	---	---	10.00	---	---	10.00
1956	R	N	1.82	3.65	---	3.95	1.52	1.52
	NA	N-R	4.76	---	---	9.52	---	9.52
	R	N-R	2.34	4.06	0.31	3.90	1.56	3.59
1957	NA	P	10.14	---	---	---	---	2.89
	R	P	2.02	0.41	0.18	7.07	0.47	0.95
	NA	N	---	---	---	---	---	---
1958	R	N	0.89	3.21	0.71	3.93	1.25	0.89
	NA	N-R	7.89	5.26	---	2.63	2.63	13.16
	R	N-R	1.02	8.76	1.02	4.38	1.31	2.04
1959	NA	P	10.67	---	---	4.00	---	1.33
	R	P	1.05	0.49	---	5.82	0.91	1.19
	NA	N	10.72	---	---	---	---	3.57
1960	R	N	1.28	0.89	0.71	3.39	2.14	0.53
	NA	N-R	6.89	3.45	---	6.89	3.45	13.79
	R	N-R	1.34	5.91	1.47	5.23	2.28	3.62

DAFSC

YEAR	S	RAT.	29	30	31	4X	51	55-57
1955	NA	P	8.70	2.17	---	---	---	2.17
	R		2.05	0.52	---	5.15	0.40	1.21
	NA	N	5.88	---	---	---	---	5.88
1956	R		1.60	1.07	0.36	1.43	1.78	1.07
	NA	N-R	7.14	---	---	3.57	7.14	21.43
	R		0.67	3.76	1.07	4.29	2.28	2.15
1957	NA	P	8.33	---	---	5.55	---	2.78
	R		2.00	0.48	0.08	3.68	0.32	1.36
	NA	N	---	---	6.25	---	---	---
1958	R		1.53	1.92	0.13	1.53	1.40	1.02
	NA	N-R	17.86	---	---	3.57	---	---
	R		1.49	5.70	0.95	3.39	1.35	2.17
1959	NA	P	7.32	---	---	---	---	9.75
	R		1.38	0.42	---	3.82	0.85	1.17
	NA	N	---	---	---	6.66	---	6.67
1960	R		0.53	1.60	0.53	1.78	1.60	1.60
	NA	N-R	8.20	6.55	6.55	---	---	4.92
	R		1.21	6.92	0.48	4.37	1.94	3.15
1961	NA	P	4.55	---	---	---	---	---
	R		1.08	0.43	---	2.71	0.33	1.41
	NA	N	3.23	---	---	---	---	6.45
1962	R		1.72	1.56	0.31	0.93	1.56	2.03
	NA	N-R	8.47	13.56	---	6.78	1.70	13.56
	R		1.26	8.18	1.26	5.30	1.71	4.04
1963	NA	P	4.76	---	---	4.76	---	4.76
	R		0.63	0.31	---	3.54	0.42	1.14
	NA	N	---	---	---	---	---	11.11
1964	R		1.66	2.32	0.33	1.49	0.83	1.32
	NA	N-R	16.67	5.55	---	5.56	---	5.55
	R		1.65	6.26	0.96	4.17	3.21	5.13
1965	NA	P	---	---	---	---	---	---
	R		0.66	0.33	0.11	2.94	0.22	0.87
	NA	N	14.29	---	---	---	---	---
1966	R		0.74	2.83	0.61	1.11	1.11	---
	NA	N-R	18.75	6.25	---	6.25	6.25	6.25
	R		1.59	8.22	1.34	4.36	2.10	5.70

DAFSC

YEAR	S	RAT.	60-66	67-69	79	80-82	9X	OTHER
1949	NA	P	---	---	---	---	---	---
	R		5.54	0.92	1.02	1.84	0.61	3.76
	NA	N	---	---	---	---	---	50.00
1950	R		4.51	0.40	1.23	9.01	1.23	15.58
	NA	N-R	33.33	---	---	33.33	---	---
	R		7.88	1.46	0.58	7.32	20.73	22.76
1951	NA	P	---	---	---	---	---	13.33
	R		4.29	0.29	0.44	1.63	0.74	16.27
	NA	N	---	---	---	---	---	30.00
1952	R		10.53	0.88	0.88	8.77	0.41	14.92
	NA	N-R	12.50	---	---	---	---	---
	R		9.39	0.33	1.34	11.74	13.42	26.84
1953	NA	P	---	---	---	---	---	12.20
	R		4.92	0.65	0.78	1.81	0.13	15.67
	NA	N	---	---	---	---	---	---
1954	R		5.20	0.37	0.74	4.83	---	13.38
	NA	N-R	---	---	---	4.76	---	23.81
	R		8.61	3.51	1.11	9.09	18.34	18.66
1955	NA	P	1.64	1.64	---	1.64	---	1.64
	R		2.73	0.38	0.42	0.85	0.09	13.48
	NA	N	---	---	---	---	---	---
1956	R		3.04	1.52	1.21	3.04	0.60	11.64
	NA	N-R	9.52	---	---	---	---	9.52
	R		7.03	1.56	1.86	9.06	12.03	26.21
1957	NA	P	---	---	---	---	---	17.39
	R		2.49	0.24	0.24	0.83	0.18	10.69
	NA	N	---	---	---	---	---	---
1958	R		2.86	1.07	0.71	3.57	0.71	2.86
	NA	N-R	2.63	---	---	2.63	---	8.64
	R		7.88	1.46	0.58	7.15	20.00	22.05
1959	NA	P	---	---	---	---	---	8.00
	R		2.80	0.21	---	0.49	0.07	8.14
	NA	N	7.14	---	---	---	---	3.57
1960	R		4.46	1.07	0.53	2.86	0.18	8.03
	NA	N-R	3.45	---	---	---	---	6.90
	R		10.87	1.88	1.34	6.71	22.55	12.73

DAFSC

YEAR	S	RAT.	60-66	67-69	79	80-82	9X	OTHER
1955	NA	P	---	2.17	---	---	---	4.35
	R		2.60	0.35	0.29	0.87	---	8.24
	NA	N	---	---	---	---	---	---
1956	R		3.39	0.71	1.07	2.68	---	10.53
	NA	N-R	3.57	---	---	7.14	---	10.72
	R		9.93	4.02	1.21	7.78	23.49	24.03
1957	NA	P	---	---	---	---	---	2.77
	R		2.40	0.40	0.80	0.88	---	8.57
	NA	N	---	---	---	12.50	---	---
1958	R		4.09	1.53	0.25	1.28	---	7.14
	NA	N-R	3.57	---	---	3.57	---	10.72
	R		4.61	2.17	0.54	3.66	33.78	17.90
1959	NA	P	---	---	---	---	---	17.07
	R		1.91	0.85	0.10	0.53	0.21	6.15
	NA	N	6.66	---	---	6.67	---	6.67
1960	R		4.11	0.71	0.18	1.43	0.18	5.18
	NA	N-R	1.64	---	---	9.84	---	4.92
	R		9.10	2.67	1.09	6.19	24.15	18.45
1961	NA	P	4.55	---	---	---	---	9.09
	R		1.73	0.22	0.11	0.54	0.43	7.16
	NA	N	12.90	---	---	3.23	---	9.68
1962	R		4.37	0.62	0.15	1.87	0.15	5.00
	NA	N-R	6.71	---	---	1.69	---	11.86
	R		9.26	2.52	0.54	6.56	17.71	18.43
1963	NA	P	---	---	---	---	---	9.52
	R		3.02	0.31	0.31	0.94	0.73	6.55
	NA	N	---	---	---	---	---	11.11
1964	R		3.32	0.99	0.16	2.16	0.16	4.81
	NA	N-R	5.56	---	---	---	---	5.56
	R		8.43	2.87	1.65	7.39	17.39	16.34
1965	NA	P	---	---	---	---	---	50.00
	R		1.53	0.54	---	0.87	0.22	5.79
	NA	N	---	---	---	---	---	---
1966	R		2.46	0.61	0.12	1.23	0.24	4.56
	NA	N-R	6.25	---	---	---	---	18.75
	R		10.40	2.43	0.59	7.63	18.12	16.78

PAFSC

YEAR	S	RAT.	00X	021	090	10-14	15	16-17
1949	NA	P	37.50	---	---	---	---	---
	R		27.49	0.21	---	38.67	---	1.33
	NA	N	50.00	---	---	---	---	---
	R		11.02	0.40	---	---	30.74	1.64
1950	NA	N-R	33.33	---	---	---	---	---
	R		12.60	---	---	---	---	---
	NA	P	30.00	---	---	10.00	---	---
	R		25.44	0.15	---	46.60	---	1.03
1951	NA	N	10.00	---	---	---	30.00	---
	R		7.46	0.43	0.43	---	25.65	0.88
	NA	N-R	6.25	---	---	---	---	---
	R		13.76	---	---	---	---	---
1952	NA	P	17.07	---	---	19.51	---	---
	R		15.03	0.13	0.26	52.46	---	0.65
	NA	N	---	---	---	---	25.00	---
	R		10.41	---	---	---	42.01	0.74
1953	NA	N-R	---	---	---	---	---	---
	R		11.16	0.32	---	---	---	0.48
	NA	P	14.75	---	---	31.15	---	---
	R		9.14	---	0.19	65.60	---	0.66
1954	NA	N	10.00	---	---	---	10.00	---
	R		4.86	---	0.30	---	48.94	0.91
	NA	N-R	4.76	---	---	---	---	---
	R		7.81	0.63	---	---	---	1.09
1955	NA	P	5.80	---	---	50.72	---	---
	R		4.69	0.18	0.06	74.70	---	0.59
	NA	N	---	---	---	---	37.50	---
	R		3.57	---	---	---	52.68	0.53
1956	NA	N-R	---	---	---	---	---	---
	R		4.37	---	0.15	---	---	1.46
	NA	P	8.00	---	1.33	49.33	---	---
	R		2.66	---	0.14	79.45	---	0.56
1957	NA	N	3.57	---	---	---	50.00	---
	R		2.14	---	0.54	---	61.43	0.71
	NA	N-R	10.34	---	---	---	---	---
	R		2.68	0.40	0.40	---	---	2.04

PAFSC

YEAR	S	RAT.	00X	021	090	10-14	15	16-17
1955	NA	P	---	---	---	56.52	---	---
	R		1.01	0.06	0.12	81.02	---	0.64
	NA	N	---	---	---	---	29.41	---
	R		1.07	0.18	0.18	0.36	66.61	0.36
1956	NA	N-R	---	---	---	---	---	---
	R		0.94	0.13	---	---	---	1.07
	NA	P	2.78	---	---	52.77	---	---
	R		0.40	0.16	0.16	82.95	---	0.64
1957	NA	N	---	---	---	---	37.50	---
	R		0.77	0.13	---	0.13	70.75	0.76
	NA	N-R	3.57	---	---	---	---	---
	R		0.41	0.27	0.14	---	---	5.16
1958	NA	P	---	---	---	68.29	---	---
	R		0.32	---	0.32	86.85	---	0.42
	NA	N	---	---	---	---	73.33	---
	R		---	---	0.18	---	74.28	0.53
1959	NA	N-R	---	---	---	---	---	---
	R		0.24	0.12	0.12	---	---	4.00
	NA	P	---	---	---	72.73	---	---
	R		---	---	0.11	86.23	0.11	0.43
1960	NA	N	---	---	---	---	64.52	---
	R		0.31	---	0.15	0.31	73.79	0.78
	NA	N-R	---	---	---	---	---	---
	R		0.81	0.09	0.36	---	---	3.77
1961	NA	P	---	---	---	71.43	---	---
	R		0.10	0.10	0.33	86.98	---	0.63
	NA	N	---	---	---	---	66.67	---
	R		---	0.17	---	0.17	77.74	0.50
1962	NA	N-R	---	---	---	---	---	---
	R		0.26	0.09	0.35	---	---	2.17
	NA	P	---	---	---	100.00	---	---
	R		---	---	---	91.05	0.11	0.33
1963	NA	N	---	---	---	---	100.00	---
	R		---	---	---	0.12	85.33	0.62
	NA	N-R	---	---	---	---	---	---
	R		0.17	---	0.42	---	---	0.67

PAFSC

YEAR	S	RAT.	18	20	21	25	26	27-28
1949	NA	P	---	---	---	---	---	37.50
	R		0.72	0.61	---	0.31	0.61	7.79
	NA	N	---	---	---	---	---	---
1950	R		0.82	---	---	1.23	0.82	7.78
	NA	N-R	---	---	---	---	---	---
	R		0.81	---	0.41	3.25	1.63	8.13
1951	NA	P	---	---	---	---	3.33	36.67
	R		0.59	---	0.30	0.15	0.88	7.84
	NA	N	---	---	---	---	---	30.00
1952	R		2.97	---	---	0.88	1.31	12.28
	NA	N-R	---	---	---	---	6.25	37.50
	R		0.33	0.33	---	2.35	1.01	6.37
1953	NA	P	---	---	---	---	2.44	39.02
	R		0.52	0.39	---	0.91	0.91	11.01
	NA	N	---	---	---	---	12.50	50.00
1954	R		0.74	0.37	0.37	1.49	1.49	6.69
	NA	N-R	---	---	---	---	---	71.43
	R		0.64	0.32	0.16	3.19	0.80	8.13
1955	NA	P	---	1.64	1.64	---	3.28	37.70
	R		0.38	0.28	---	0.47	0.56	9.99
	NA	N	---	---	---	---	10.00	50.00
1956	R		1.82	0.30	0.30	0.91	2.13	8.81
	NA	N-R	---	---	---	4.76	9.52	47.62
	R		0.31	0.31	---	7.81	3.44	7.34
1957	NA	P	---	---	---	---	4.35	28.96
	R		0.12	0.06	0.06	0.53	0.41	7.01
	NA	N	12.50	---	---	---	---	37.50
1958	R		2.68	0.53	0.18	0.89	0.71	6.43
	NA	N-R	2.63	---	---	---	5.26	50.00
	R		1.31	0.29	---	6.28	2.04	8.47
1959	NA	P	---	---	---	---	2.67	24.00
	R		0.42	0.14	---	0.14	0.77	5.89
	NA	N	3.57	---	---	---	3.57	26.57
1960	R		2.14	0.18	0.18	0.89	1.60	6.96
	NA	N-R	---	---	---	---	10.34	37.93
	R		2.55	0.80	---	3.22	2.28	7.25

PAFSC

YEAR	S	RAT.	18	20	21	25	26	27-28
1955	NA	P	---	---	---	---	---	34.78
	R		0.58	0.23	0.12	0.23	1.21	5.79
	NA	N	---	---	---	---	5.88	52.94
1956	R		2.50	---	---	0.36	2.14	6.07
	NA	N-R	---	---	---	---	7.14	39.29
	R		2.41	0.54	---	4.43	2.95	4.56
1957	NA	P	---	---	---	---	2.78	33.33
	R		0.56	---	---	0.08	0.88	6.81
	NA	N	---	---	---	---	6.25	37.50
1958	R		3.32	---	0.13	0.38	1.28	5.75
	NA	N-R	3.57	---	---	3.57	10.71	50.00
	R		2.98	0.41	---	4.61	2.44	8.00
1959	NA	P	---	---	---	---	---	19.51
	R		0.21	---	---	---	0.74	4.45
	NA	N	6.67	---	---	---	---	13.33
1960	R		2.14	0.18	---	---	1.78	5.89
	NA	N-R	4.92	3.28	---	3.28	1.64	52.46
	R		3.28	0.97	---	3.64	1.82	8.01
1961	NA	P	---	---	---	---	---	22.73
	R		0.43	---	---	---	0.22	6.51
	NA	N	3.22	---	---	---	3.22	9.68
1962	R		2.50	---	---	0.15	0.47	5.30
	NA	N-R	3.39	---	---	1.69	5.08	39.90
	R		4.50	0.18	0.18	3.87	2.88	9.71
1963	NA	P	---	---	---	---	4.76	14.28
	R		0.10	0.10	---	0.10	0.31	4.48
	NA	N	---	---	---	---	---	22.22
1964	R		1.50	0.50	---	0.17	0.66	3.98
	NA	N-R	5.55	---	---	---	5.55	50.00
	R		4.78	0.35	---	4.52	2.96	10.78
1965	NA	P	---	---	---	---	---	---
	R		0.43	---	0.11	0.11	0.54	3.49
	NA	N	---	---	---	---	---	---
1966	R		1.60	---	---	---	0.74	1.48
	NA	N-R	---	12.50	---	---	6.25	18.75
	R		6.04	0.50	---	3.86	3.19	7.97

PAFSC

YEAR	S	RAT.	29	30	31	4X	51	55-57
1949	NA	P	12.50	---	---	12.50	---	---
	R		3.38	0.82	0.31	5.23	0.20	1.23
	NA	N	---	---	---	---	---	---
1950	R		2.87	2.46	1.64	6.55	0.82	1.23
	NA	N-R	---	---	---	---	---	---
	R		4.06	4.47	0.41	2.84	0.41	3.25
1951	NA	P	13.33	3.33	---	---	---	3.33
	R		1.77	0.59	0.59	5.47	0.15	0.89
	NA	N	10.00	---	---	---	---	10.00
1952	R		0.88	3.94	2.19	5.70	0.88	0.88
	NA	N-R	12.50	6.25	6.25	---	6.25	6.25
	R		3.69	4.36	0.67	4.70	1.68	1.68
1953	NA	P	17.07	---	---	---	---	2.44
	R		1.94	0.91	0.26	4.79	0.39	1.29
	NA	N	---	---	---	---	---	12.50
1954	R		4.46	3.72	0.37	4.83	1.11	2.97
	NA	N-R	---	4.76	---	---	---	9.52
	R		1.91	5.26	0.64	3.51	1.43	3.51
1955	NA	P	4.92	---	---	---	---	1.64
	R		1.88	0.09	0.09	3.58	0.19	1.04
	NA	N	---	---	10.00	---	---	10.00
1956	R		2.13	3.95	0.30	3.95	1.52	1.22
	NA	N-R	---	---	---	9.52	---	4.76
	R		2.34	3.90	0.63	3.91	2.03	3.75
1957	NA	P	8.69	---	---	---	---	1.45
	R		1.48	0.18	0.24	4.04	0.30	0.53
	NA	N	12.50	---	---	---	---	---
1958	R		0.89	3.39	0.71	4.64	1.78	0.71
	NA	N-R	5.26	5.26	---	---	2.63	10.53
	R		1.02	8.61	0.87	4.67	1.17	1.75
1959	NA	P	12.00	---	---	2.67	---	---
	R		0.84	0.49	---	3.58	0.77	0.35
	NA	N	3.57	---	---	---	---	---
1960	R		1.96	0.53	0.53	4.11	1.25	0.71
	NA	N-R	13.79	3.45	---	3.45	3.45	13.79
	R		0.80	6.04	1.61	6.31	2.42	4.03

PAFSC

YEAR	S	RAT.	29	30	31	4X	51	55-57
1955	NA	P	6.52	---	---	---	---	---
	R		1.04	0.40	0.06	2.55	0.35	0.69
	NA	N	11.76	---	---	---	---	---
	R		0.89	2.32	0.36	2.14	2.86	1.07
1956	NA	N-R	10.71	---	---	3.57	3.57	17.86
	R		0.40	3.62	0.94	4.56	2.28	2.15
	NA	P	8.33	---	---	---	---	---
	R		0.72	0.32	0.08	1.52	0.08	0.72
1957	NA	N	---	---	6.25	---	---	---
	R		0.26	1.91	0.13	2.04	1.15	1.15
	NA	N-R	17.86	---	---	---	---	---
	R		0.81	5.83	1.08	3.39	1.76	2.04
1958	NA	P	4.88	---	---	---	---	4.88
	R		0.95	0.21	---	1.91	0.53	0.32
	NA	N	---	---	---	---	---	---
	R		0.71	1.60	0.53	1.43	0.89	1.07
1959	NA	N-R	4.92	6.55	4.92	---	---	6.55
	R		0.97	2.04	0.48	4.37	1.70	3.28
	NA	P	---	---	---	---	---	---
	R		0.53	0.32	---	1.30	0.22	0.76
1960	NA	N	3.22	---	---	---	---	---
	R		1.25	1.40	0.31	0.94	0.78	1.09
	NA	N-R	6.78	15.25	---	5.08	1.69	10.17
	R		0.99	8.54	1.08	5.39	1.80	4.14
1961	NA	P	4.76	---	---	---	---	4.76
	R		0.31	0.11	---	1.63	0.22	0.65
	NA	N	---	---	---	---	---	11.11
	R		1.16	1.49	0.33	1.66	0.99	0.66
1962	NA	N-R	5.55	5.55	---	5.55	---	5.55
	R		1.13	6.17	1.22	4.78	3.30	5.04
1963	NA	P	---	---	---	---	---	---
	R		0.11	0.22	---	1.31	0.11	0.22
	NA	N	---	---	---	---	---	---
	R		0.37	2.71	0.49	0.99	0.49	---
1964	NA	N-R	18.75	6.25	---	6.25	6.25	6.25
	R		0.50	8.22	1.17	4.45	2.43	5.70

PAFSC

YEAR	S	RAT.	60-66	67-69	79	80-82	9X	OTHER
1949	NA	P	---	---	---	---	---	---
	R		3.90	0.82	0.61	1.54	0.61	3.61
	NA	N	---	---	---	---	---	50.00
1950	R		6.15	0.82	1.23	11.88	1.23	8.62
	NA	N-R	33.33	---	---	33.33	---	---
	R		9.76	0.81	0.41	7.72	21.14	17.89
1951	NA	P	---	---	---	---	---	---
	R		3.11	0.29	0.15	1.18	0.74	2.09
	NA	N	---	---	---	---	---	10.00
1952	R		8.77	0.88	1.32	7.45	0.44	17.54
	NA	N-R	12.50	---	---	---	---	---
	R		10.74	1.01	1.34	12.08	13.42	20.48
1953	NA	P	---	---	---	---	---	2.44
	R		3.37	0.26	---	1.81	0.26	2.45
	NA	N	---	---	---	---	---	---
1954	R		4.83	---	0.37	4.46	---	8.57
	NA	N-R	4.76	---	---	9.52	---	---
	R		9.25	2.87	0.96	9.25	18.34	17.87
1955	NA	P	---	1.64	---	---	---	1.64
	R		1.69	0.38	0.28	0.56	0.09	2.86
	NA	N	---	---	---	---	---	---
1956	R		2.74	1.82	1.22	3.65	0.61	7.61
	NA	N-R	9.52	---	---	---	---	9.52
	R		6.41	1.72	2.03	9.69	12.03	22.82
1957	NA	P	---	---	---	---	---	---
	R		1.60	0.30	0.24	0.53	0.28	1.87
	NA	N	---	---	---	---	---	---
1958	R		2.14	0.89	0.71	5.71	0.71	4.52
	NA	N-R	5.26	---	---	2.63	---	10.53
	R		8.32	1.60	0.44	8.03	20.29	18.86
1959	NA	P	---	---	---	---	---	---
	R		1.47	0.21	0.07	0.21	0.07	1.77
	NA	N	7.14	---	---	---	---	---
1960	R		3.75	1.07	0.53	3.21	0.18	5.40
	NA	N-R	---	---	---	---	---	3.45
	R		11.14	2.42	1.07	6.58	22.55	13.41

PAFSC

YEAR	S	RAT.	60-66	67-69	79	80-82	9X	OTHER
1955	NA	P	---	---	---	---	---	2.17
	R		1.27	0.29	0.06	0.46	---	1.82
	NA	N	---	---	---	---	---	---
	R		1.96	1.25	1.07	3.57	---	2.68
1956	NA	P	---	---	---	---	---	---
	R		1.04	0.32	0.40	0.40	000	1.76
	NA	N	---	---	---	12.50	---	---
	R		3.06	1.66	0.26	2.17	---	2.81
1957	NA	P	---	---	---	---	---	---
	R		2.44	---	---	---	---	---
	NA	N	---	---	---	6.67	---	---
	R		3.52	0.89	0.18	1.07	0.18	2.90
1958	NA	P	---	---	---	---	---	---
	R		0.74	0.42	0.11	0.21	0.21	1.06
	NA	N	---	---	---	---	---	---
	R		3.52	0.89	0.18	1.07	0.18	2.90
1959	NA	P	---	---	---	---	---	---
	R		1.64	---	---	9.84	---	---
	NA	N	---	---	---	---	---	---
	R		9.71	3.64	0.97	6.43	24.15	15.06
1960	NA	P	---	---	---	---	---	---
	R		0.65	0.22	---	0.32	0.43	1.30
	NA	N	---	---	---	---	---	---
	R		9.68	3.22	---	3.22	---	---
1961	NA	P	---	---	---	---	---	---
	R		3.74	0.78	0.15	2.65	0.16	2.99
	NA	N	---	---	---	---	---	---
	R		6.78	---	---	3.39	---	6.78
1962	NA	P	---	---	---	---	---	---
	R		9.17	2.70	0.54	7.37	17.71	14.22
	NA	N	---	---	---	---	---	---
	R		1.30	0.31	0.11	0.42	0.73	1.14
1963	NA	P	---	---	---	---	---	---
	R		1.83	0.83	---	2.82	0.17	2.67
	NA	N	---	---	---	---	---	---
	R		11.11	---	---	---	---	5.55
1964	NA	P	---	---	---	---	---	---
	R		8.35	3.22	1.65	7.65	17.39	13.84
	NA	N	---	---	---	---	---	---
	R		0.54	0.22	---	0.22	0.22	0.65
1965	NA	P	---	---	---	---	---	---
	R		1.60	0.49	0.12	0.99	0.25	1.61
	NA	N	---	---	---	---	---	---
	R		6.25	---	---	---	---	12.50
1966	NA	P	---	---	---	---	---	---
	R		11.32	2.68	0.59	8.05	18.12	13.95
	NA	N	---	---	---	---	---	---
	R		---	---	---	---	---	---

Appendix D

Professional Military Education

Professional Military Education

This Appendix reflects the highest level of Professional Military Education completed either by correspondence or in residence. Tabulation is according to aeronautical rating for Naval Academy graduates and the total regular officer complement, by year of commission.

Abbreviations applicable to this Appendix are:

S - - - - - Source of commission
 n - - - - - Number
 SOS - - - - - Squadron Officers School
 INTER - - - - - Intermediate level schools
 SEN - - - - - Senior level schools
 NA - - - - - Naval Academy graduates
 R - - - - - Total regular officer complement

Intermediate level schools:

Inter-American or NATO Defense College
 United Kingdom Joint Services Staff College
 Armed Forces Staff College
 Marine Corps Senior Course
 Air Command and Staff College, any nation
 Command and General Staff College
 Naval War College Command and Staff
 Air Warfare Course, Royal Air Force College of Air Warfare

Senior level schools:

National War College, any nation
 Industrial College of the Armed Forces
 Air War College
 Army War College
 Naval War College

Tabulations indicate the percent completion rates.

PILOTS

YEAR	S	n	NONE	SOS	INTER	SEN
1949	NA	8	---	25.00	25.00	50.00
	R	975	17.44	25.02	36.21	21.33
1950	NA	30	13.33	26.67	13.33	46.67
	R	676	16.12	34.47	28.99	20.41
1951	NA	41	2.44	26.83	31.71	39.02
	R	772	13.08	37.95	31.22	17.75
1952	NA	61	14.75	40.98	34.34	9.84
	R	1061	6.03	45.05	34.59	14.33
1953	NA	69	5.80	43.48	30.43	20.29
	R	1684	8.43	52.85	29.93	8.79
1954	NA	75	10.66	50.67	26.67	12.00
	R	1426	9.82	52.17	30.86	7.15
1955	NA	46	13.04	47.83	32.61	6.52
	R	1728	10.53	58.04	25.87	5.55
1956	NA	36	16.66	36.11	41.67	5.56
	R	1249	12.57	56.77	24.42	6.24
1957	NA	41	17.07	48.78	21.95	12.20
	R	943	17.49	60.87	17.82	3.82
1958	NA	22	9.09	59.09	22.73	9.09
	R	922	16.38	62.69	18.00	2.93
1959	NA	21	4.76	85.71	9.52	---
	R	960	18.85	65.42	12.29	3.44
1960	NA	4	---	75.00	---	25.00
	R	916	19.32	68.78	9.83	2.07
TOTAL	NA	454	10.57	44.71	27.97	16.74
	R	13312	13.06	52.61	25.50	8.82

NAVIGATORS

YEAR	S	n	NONE	SOS	INTER	SEN
1949	NA R	2 244	--- 18.44	50.00 19.26	--- 43.85	50.00 18.44
1950	NA R	10 228	--- 21.05	10.00 25.44	60.00 30.26	30.00 23.25
1951	NA R	8 269	--- 15.24	37.50 37.17	12.50 30.85	50.00 16.73
1952	NA R	10 329	20.00 7.90	30.00 49.24	30.00 32.52	20.00 10.33
1953	NA R	8 560	--- 7.68	50.00 53.03	37.50 32.68	12.50 6.61
1954	NA R	28 560	14.29 6.61	35.71 51.61	35.71 33.57	14.29 8.21
1955	NA R	17 560	5.88 10.00	47.06 54.64	41.18 29.46	5.88 5.89
1956	NA R	16 783	--- 10.98	81.25 59.26	6.25 22.22	12.50 7.53
1957	NA R	15 560	6.66 14.46	66.67 64.82	20.00 15.89	6.67 4.82
1958	NA R	31 641	9.68 11.54	67.74 69.27	12.90 15.91	9.68 3.28
1959	NA R	9 602	11.11 12.29	77.78 70.76	11.11 14.62	--- 2.32
1960	NA R	7 811	--- 18.62	71.44 69.42	14.28 9.49	14.28 2.47
TOTAL	NA R	161 6147	7.45 12.40	53.42 57.24	24.84 23.30	14.29 7.06

NON-RATED

YEAR	S	n	NONE	SOS	INTER	SEN
1949	NA	3	---	66.67	---	33.33
	R	246	29.67	19.92	28.05	22.36
1950	NA	16	---	12.50	31.25	56.25
	R	298	20.13	37.92	21.81	20.13
1951	NA	21	4.76	42.86	28.57	23.81
	R	627	29.24	30.08	24.88	15.79
1952	NA	21	9.52	52.38	14.29	23.81
	R	640	18.44	40.16	28.59	12.81
1953	NA	38	15.78	44.74	26.32	13.16
	R	685	27.15	40.00	23.06	9.78
1954	NA	29	3.45	44.83	41.38	10.34
	R	745	21.48	44.97	24.97	8.59
1955	NA	28	17.85	39.29	39.29	3.57
	R	745	26.44	44.83	23.35	5.37
1956	NA	28	25.00	35.71	32.14	7.14
	R	737	37.99	36.36	20.08	5.56
1957	NA	61	9.84	59.01	22.95	8.20
	R	824	34.34	42.35	18.08	5.22
1958	NA	59	11.86	62.72	25.42	---
	R	1112	30.66	50.90	14.93	3.51
1959	NA	18	16.67	72.22	11.11	---
	R	1150	32.26	52.61	10.35	4.78
1960	NA	16	12.50	62.50	18.75	6.25
	R	1192	34.06	52.01	10.74	3.19
TOTAL	NA	338	11.83	50.59	26.63	10.95
	R	9001	29.30	44.22	18.90	7.59

ALL OFFICERS

YEAR	S	n	NONE	SOS	INTER	SEN
1949	NA	13	---	38.47	15.38	46.15
	R	1465	19.66	23.21	36.11	21.02
1950	NA	56	7.14	19.64	26.79	46.43
	R	1202	11.36	27.58	27.45	33.61
1951	NA	70	2.86	32.86	28.57	35.71
	R	1668	18.22	36.15	28.78	16.85
1952	NA	92	14.13	42.39	29.35	14.13
	R	2030	10.25	44.19	32.36	13.20
1953	NA	115	8.69	44.35	29.57	17.39
	R	2929	12.67	49.88	28.85	8.60
1954	NA	132	9.86	46.21	31.81	12.12
	R	2731	12.34	50.09	29.81	7.76
1955	NA	91	13.20	45.05	36.26	5.49
	R	3033	14.35	54.17	25.91	5.57
1956	NA	80	16.25	45.00	31.25	7.50
	R	2769	18.89	52.04	22.64	6.43
1957	NA	117	11.97	56.41	22.22	9.40
	R	2327	22.73	55.26	17.45	4.56
1958	NA	112	10.72	63.39	21.43	4.46
	R	2675	21.17	59.36	16.22	3.25
1959	NA	48	10.42	79.16	10.42	---
	R	2712	23.09	61.17	11.98	3.76
1960	NA	27	7.41	66.67	14.81	11.11
	R	2919	25.14	62.11	10.11	2.64
TOTAL	NA	953	10.49	48.27	26.97	14.27
	R	28460	18.05	50.96	22.94	8.05

Appendix E

Educational Level

Educational Level

This Appendix reflects the educational level completed for Naval Academy graduates and the total regular officer complement, by year of commission and aeronautical rating. Those individuals presently enrolled are listed by the highest level fully completed.

Abbreviations applicable to this Appendix are:

S - - - - - Source of commission
n - - - - - Number
B - - - - - Bachelors Degree
B+ - - - - - Bachelors Degree plus credits
M - - - - - Masters Degree
M+ - - - - - Masters Degree plus 30 credit hours
P - - - - - Doctorate Degree

Tabulations indicate the percent completion rates.

PILOTS

YEAR	S	n	NONE	B	B+	M	M+	PhD
1949	NA R	8 975	--- 41.85	12.50 28.72	12.50 3.18	62.50 23.08	--- 1.03	12.50 2.15
1950	NA R	30 676	--- 35.95	13.33 35.50	--- 2.22	66.67 22.93	13.33 0.89	6.67 2.51
1951	NA R	41 772	--- 24.61	14.63 40.28	9.76 4.15	73.17 28.63	2.44 1.17	--- 1.17
1952	NA R	61 1061	--- 15.65	21.31 50.14	6.56 4.15	63.93 27.52	1.64 1.04	6.56 1.51
1953	NA R	69 1684	--- 26.84	20.29 47.57	5.79 3.33	69.57 20.96	2.90 0.30	1.45 1.01
1954	NA R	75 1426	--- 28.61	25.33 44.53	2.67 3.65	66.66 21.46	2.67 0.42	2.67 1.33
1955	NA R	46 1728	--- 22.86	28.27 48.15	2.17 4.75	67.39 22.57	2.17 0.69	--- 0.98
1956	NA R	36 1249	--- 19.38	22.22 52.60	--- 4.00	75.00 21.30	--- 0.96	2.78 1.76
1957	NA R	41 943	--- 28.31	26.83 50.05	2.44 3.29	65.85 16.54	--- 1.17	4.88 0.63
1958	NA R	22 922	--- 21.48	68.18 53.69	--- 5.53	27.27 17.35	4.45 1.41	--- 0.54
1959	NA R	21 960	--- 22.60	57.15 55.42	4.76 3.33	33.33 16.77	4.76 0.63	--- 1.25
1960	NA R	4 916	--- 38.32	50.00 45.41	25.00 5.02	25.00 10.26	--- 0.33	--- 0.66
TOTAL	NA R	454 13312	--- 26.57	25.99 46.60	4.19 3.92	64.10 20.88	2.86 0.78	2.86 1.25

NAVIGATORS

YEAR	S	n	NONE	B	B+	M	M+	PhD
1949	NA R	2 244	--- 25.82	--- 31.15	--- 4.10	50.00 30.74	--- 2.87	50.00 5.33
1950	NA R	10 228	--- 25.44	20.00 37.28	--- 3.51	70.00 26.75	--- 2.19	10.00 4.82
1951	NA R	8 269	--- 18.96	12.50 42.01	--- 5.20	75.00 26.39	12.50 2.60	--- 4.83
1952	NA R	10 329	--- 13.07	10.00 44.98	--- 5.47	90.00 31.31	--- 2.43	--- 2.74
1953	NA R	8 560	--- 26.79	12.50 42.14	--- 5.36	75.00 22.32	--- 1.25	12.50 2.14
1954	NA R	28 560	--- 20.36	17.86 42.32	3.57 5.00	67.86 27.86	3.57 1.79	7.14 2.68
1955	NA R	17 560	--- 16.07	17.65 42.32	--- 5.71	64.71 32.68	5.88 1.61	11.76 1.61
1956	NA R	16 783	--- 17.37	31.25 44.19	6.25 5.75	50.00 29.63	6.25 0.89	6.25 2.17
1957	NA R	15 560	--- 23.04	33.33 42.68	6.67 5.18	60.00 26.43	--- 1.43	--- 1.25
1958	NA R	31 641	--- 17.78	22.58 51.33	3.23 4.68	67.74 24.96	6.45 0.94	--- 0.31
1959	NA R	9 602	--- 30.07	33.33 43.52	--- 3.65	66.67 21.10	--- 0.83	--- 0.83
1960	NA R	7 811	--- 45.25	71.44 37.11	14.28 3.58	14.28 13.32	--- 0.12	--- 0.62
TOTAL	NA R	161 6147	--- 24.34	23.60 42.44	3.12 4.80	64.60 25.20	3.73 1.30	4.97 1.92

NON-RATED

YEAR	S	n	NONE	B	B+	M	M+	PhD
1949	NA R	3 246	--- 15.04	--- 19.92	--- 4.88	100.00 34.55	--- 2.85	--- 22.76
1950	NA R	16 298	--- 13.76	--- 31.88	--- 11.07	68.75 28.19	18.75 2.68	12.50 12.42
1951	NA R	21 627	--- 9.89	19.05 31.42	--- 7.18	66.67 36.20	9.52 4.78	4.76 10.53
1952	NA R	21 640	--- 3.75	9.52 34.53	9.52 8.13	38.10 37.81	4.76 4.06	38.10 11.72
1953	NA R	38 685	--- 8.47	10.53 33.14	--- 6.13	63.15 30.95	10.53 4.96	15.79 16.35
1954	NA R	29 745	--- 8.19	13.79 35.17	10.34 6.17	44.83 33.69	6.90 2.82	24.14 13.96
1955	NA R	28 745	--- 8.19	10.71 32.08	7.14 7.25	64.30 33.15	3.57 3.49	14.28 15.84
1956	NA R	28 737	--- 13.30	7.14 27.82	7.14 6.51	64.30 25.10	10.71 3.93	10.71 23.34
1957	NA R	61 824	--- 13.35	16.39 35.32	9.84 4.73	54.10 26.82	11.47 3.52	8.20 16.26
1958	NA R	59 1112	--- 13.67	16.95 32.37	8.47 7.19	64.41 28.51	6.78 3.42	3.39 14.84
1959	NA R	18 1150	--- 11.65	11.11 34.70	5.56 7.13	66.66 30.35	5.56 3.57	11.11 12.61
1960	NA R	16 1192	--- 11.91	31.25 35.07	--- 6.21	62.50 28.18	--- 3.61	6.25 15.02
TOTAL	NA R	338 9001	--- 10.89	13.61 32.92	6.21 6.74	59.76 30.62	8.28 3.69	12.13 15.14

ALL OFFICERS

YEAR	S	n	NONE	B	B+	M	M+	PhD
1949	NA R	13 1465	--- 34.68	7.69 27.65	7.69 3.62	69.24 26.28	--- 1.64	15.38 6.14
1950	NA R	56 1202	--- 28.45	10.71 34.94	--- 4.66	67.86 24.96	12.50 1.58	8.93 5.41
1951	NA R	70 1668	--- 18.17	15.71 37.23	5.71 5.46	71.44 31.11	5.71 2.76	1.43 5.28
1952	NA R	92 2030	--- 11.48	17.39 44.38	6.52 5.62	60.88 31.38	2.17 2.22	13.04 4.93
1953	NA R	115 2929	--- 22.53	16.52 43.15	3.48 4.37	67.83 23.56	5.22 1.57	6.96 4.81
1954	NA R	132 2731	--- 21.35	21.21 41.52	4.55 4.61	62.12 26.11	3.79 1.35	8.33 5.05
1955	NA R	91 3033	--- 18.00	20.88 43.13	3.30 5.54	65.93 27.04	3.30 1.55	6.59 4.75
1956	NA R	80 2769	--- 17.19	18.75 43.63	3.75 5.16	66.25 24.67	5.00 1.73	6.25 7.62
1957	NA R	117 2327	--- 21.74	22.22 43.06	6.84 4.25	58.98 22.56	5.98 2.06	5.98 6.32
1958	NA R	112 2675	--- 17.35	28.57 44.26	5.36 6.02	58.04 23.81	6.25 2.13	1.79 6.43
1959	NA R	48 2712	--- 19.62	35.42 43.99	4.17 5.01	52.08 23.49	4.17 1.92	4.17 5.97
1960	NA R	27 2919	--- 29.46	44.44 38.88	7.41 5.10	44.44 18.43	--- 1.61	3.71 6.51
TOTAL	NA R	953 28460	--- 21.13	21.62 41.37	4.72 5.01	62.22 24.89	4.93 1.81	6.51 5.79

Vita

William Everett Hodge was born in Lake Geneva, Wisconsin, on 27 September 1934. He graduated from high school in Delavan, Wisconsin in 1952, and entered the University of Wisconsin. In 1953 he accepted an appointment to the United States Naval Academy and graduated with a Bachelor of Science Degree in 1957, receiving his commission in the United States Air Force. After pilot training at Bartow AB, Florida and Goodfellow AFB, Texas, he was assigned to the 12th Aeromedical Transport Squadron, MATS, Brooks AFB, Texas. Since that time he has served as Aide de Camp, Office of Aerospace Research, Washington, D. C., transport standardization chief pilot, Vung Tau, RVN, and instructor pilot, Operations Officer, 97th ARS, Blytheville AFB, Arkansas. In 1971 he was assigned to the Air Force Institute of Technology in pursuit of a Master of Science Degree in Systems Management.

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